

10/723123

104/1

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FILE COVERS 1907 - 2 Jun 2005 VOL 142 ISS 23
FILE LAST UPDATED: 1 Jun 2005 (20050601/ED)

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-key terms

- L1 1494 SEA FILE=HCAPLUS ABB=ON PLU=ON (EIMERIA OR "E") (W) (COCCIDIOS? OR TENELLA OR NECATRIX OR BRUNETTI OR MITIS OR ACERVUL?)
- L2 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND (NEUROLYPHOMAT? OR NEURO LYMPHOMAT? OR FOWL PARALYSIS OR CELO VIRUS OR (MAREK? OR NEW CASTLE? OR NEWCASTLE?) (W) DISEAS? OR INFECTIOUS BRONCHITIS OR CHICKEN (1W) (ANEMIA OR ANAEMIA) (W) AGENT OR REOVIRUS OR REOVIRID? OR REO (W) (VIRUS OR VIRID?))
- L3 93 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND (FOWL (W) (ADENOVIR? OR ADENO VIR?) OR AVIAN (W) (RETROVIR? OR RETRO VIR?) OR TURKEY (W) (RHINOTRACH? OR RHINO TRACH?) OR SALMONELLA OR COLI OR MDV OR NDV OR IBV OR CAA)
- L4 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND AVIAN (2W) (PNEUMOVIR? OR METAPNEUMOVIR? OR (METAPNEUMO OR PNEUMO) (W) VIR?)
- L5 3 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L3 OR L4) AND (HYDROPHIL? OR HYDRO PHIL?)
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- L1 1494 SEA FILE=HCAPLUS ABB=ON PLU=ON (EIMERIA OR "E") (W) (COCCIDIOS? OR TENELLA OR NECATRIX OR BRUNETTI OR MITIS OR ACERVUL?)
- L2 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND (NEUROLYPHOMAT? OR NEURO LYMPHOMAT? OR FOWL PARALYSIS OR CELO VIRUS OR (MAREK? OR NEW CASTLE? OR NEWCASTLE?) (W) DISEAS? OR INFECTIOUS BRONCHITIS OR CHICKEN (1W) (ANEMIA OR ANAEMIA) (W) AGENT OR REOVIRUS OR REOVIRID? OR REO (W) (VIRUS OR VIRID?))
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- L4 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND AVIAN (2W) (PNEUMOVIR? OR METAPNEUMOVIR? OR (METAPNEUMO OR PNEUMO) (W) VIR?)
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- L7 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 AND (FREEZ? (W) (DRIED

OR DRY?) OR LYOPHIL?)

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- L2 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND (NEUROLYPHOMAT? OR NEURO LYPHOMAT? OR FOWL PARALYSIS OR CELO VIRUS OR (MAREK? OR NEW CASTLE? OR NEWCASTLE?) (W) DISEAS? OR INFECTIOUS BRONCHITIS OR CHICKEN (1W) (ANEMIA OR ANAEMIA) (W) AGENT OR REOVIRUS OR REOVIRID? OR REO (W) (VIRUS OR VIRID?))
- L3 93 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND (FOWL (W) (ADENOVIR? OR ADENO VIR?) OR AVIAN (W) (RETROVIR? OR RETRO VIR?) OR TURKEY (W) (RHINOTRACH? OR RHINO TRACH?) OR SALMONELLA OR COLI OR MDV OR NDV OR IBV OR CAA)
- L4 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND AVIAN (2W) (PNEUMOVIR? OR METAPNEUMOVIR? OR (METAPNEUMO OR PNEUMO) (W) VIR?)
- L8 41 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L3 OR L4) AND (IMMUNIS? OR IMMUNIZ? OR VACCIN?)
- L9 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND ADJUVANT

L10 8 L5 OR L7 OR L9

L10 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 04 Aug 2000

ACCESSION NUMBER: 2000:534232 HCAPLUS

DOCUMENT NUMBER: 134:69991

TITLE: Vaccination against coccidiosis with SO7
recombinant antigen of *Eimeria*
tenella BJ strain

AUTHOR(S): Li, An-xing; Jiang, Jin-shu

CORPORATE SOURCE: China Agricultural University, Beijing, 100094,
Peop. Rep. ChinaSOURCE: Zhongguo Shouyi Xuebao (2000), 20(2), 167-170
CODEN: ZSXUF5; ISSN: 1005-4545

PUBLISHER: Zhongguo Shouyi Xuebao Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB A expression vector, designated pTHioHisSO7, was constructed with inserting SO7 gene into pTHioHisB vector and expressed in *E. coli* DH5 α with inducing of IPTG. PTHioHisSO7 protein of approx. 40,000 in size was synthesized in *E. coli* at high level (17.1% of protein visible on coomassie blue stained gels). *E. coli* transformants containing pTHioHisSO7 was sonicated and added alum as a **adjuvant** at final concentration of 1%. Young chickens were **vaccinated** at 4, 11, 17 days of age resp. with SO7 recombinant antigen at 100 jig of large dose or 10 μ g of low dose. The groups of un-**vaccinated**/unchallenged (uvuc), un-**vaccinated**/challenged (uvc), SO7 + live **vaccine** (virulent or attenuated) and live **vaccine** were set up as controls. Exptl. birds were challenged with 3+104 sporulated oocysts of *E. tenella* at 25 days of age. The results showed that SO7 recombinant antigen with **adjuvant** at 100 μ g of large dose could induce a partial protection for chickens against coccidiosis by decreasing of 30% in cecal lesion score, but no protection was observed at 10 μ g of low dose.

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L10 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 28 Apr 2000

ACCESSION NUMBER: 2000:277728 HCAPLUS

DOCUMENT NUMBER: 132:307245

TITLE: **Hydrophilic** polypeptides from Eimeria
and coccidiosis **vaccines**

INVENTOR(S): Schaap, Theodorus Cornelis; Kuijper, Catharina
Maria; Vermeulen, Arnoldus Nicolaas

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.

SOURCE: Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 995799	A2	20000426	EP 1999-203214	19991001
EP 995799	A3	20000531		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
NZ 500033	A	20010629	NZ 1998-500033	19980101
JP 2000219635	A2	20000808	JP 1999-281680	19991001
US 6203801	B1	20010320	US 1999-411578	19991004
CA 2285136	AA	20000407	CA 1999-2285136	19991006
ZA 9906341	A	20000410	ZA 1999-6341	19991006
AU 9953480	A1	20000413	AU 1999-53480	19991006
AU 753959	B2	20021031		
MX 9909162	A	20001031	MX 1999-9162	19991006
BR 9904488	A	20010123	BR 1999-4488	19991006
US 6680061	B1	20040120	US 2000-749233	20001227
US 2005037020	A1	20050217	US 2003-723123	20031126
PRIORITY APPLN. INFO.:			EP 1998-203384	A 19981007
			EP 1998-203457	A 19981016
			US 1999-411578	A3 19991004
			US 2000-749233	A3 20001227

AB It is an objective of the present invention to provide polypeptides that are capable of inducing protection against the pathogenic effects of Eimeria infection in poultry. The invention relates to **hydrophilic** Eimeria polypeptides, DNA fragments encoding those peptides, live recombinant carriers comprising such fragments, host cells comprising such fragments or carriers, antibodies against the polypeptide and coccidiosis **vaccines**. The invention also relates to methods for the preparation of such antibodies and **vaccines**, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

L10 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 17 May 1997

ACCESSION NUMBER: 1997:315385 HCAPLUS

DOCUMENT NUMBER: 126:288099

TITLE: Method using lysine analogs for preventing and
treating coccidiosis or other parasitic diseases

Searcher : Shears 571-272-2528

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and as **vaccine adjuvant**
against parasitic disease
INVENTOR(S): Beretich, Guy R., Sr.; Beretich, Louis D.
PATENT ASSIGNEE(S): Agrimmune, Inc., USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9712582	A2	19970410	WO 1996-IB1127	19961006
WO 9712582	A3	19970529		
W: BR, CN, JP, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
PT, SE				
US 5888518	A	19990330	US 1995-540595	19951006
PRIORITY APPLN. INFO.:			US 1995-540595	A 19951006

AB A method is disclosed for preventing and treating parasitic infections in animals by administering a lysine analog, such as ϵ -aminocaproic acid (EACA), to the animals on a continuous basis. In the preferred embodiment, the method of the present invention is directed to preventing and treating coccidial infections in poultry by adding EACA to the daily diet of a poultry flock. EACA may also be administered in ovo before hatching. The administration of EACA enhances the natural immune response of the poultry to the invading coccidial organisms and enables the poultry to combat the parasites without the need for antibiotics. Another aspect of the present invention involves preventing parasitic diseases in humans and animals by prophylactically administering a serine protease inhibitor, such as EACA, as an **adjuvant** in conjunction with a conventional **vaccine** effective against the target parasite. The efficacy of EACA in chickens exposed to **Eimeria tenella** was determined

L10 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 25 Oct 1996

ACCESSION NUMBER: 1996:630498 HCAPLUS

DOCUMENT NUMBER: 125:267551

TITLE: Avian type II interferon: genetic sequences encoding same, manufacture with recombinant cells, and its use as immunostimulant and growth enhancer
INVENTOR(S): Lowenthal, John William; York, Jennifer Joy; O'Neil, Terri Ellen; Rhodes, Stephen; Digby, Matthew Robert

PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organisation, Australia

SOURCE: PCT Int. Appl., 128 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searcher : Shears 571-272-2528

10/723123

WO 9627666 A1 19960912 WO 1996-AU114 19960305
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK,
EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR,
LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN
CA 2214453 AA 19960912 CA 1996-2214453 19960305
AU 9647792 A1 19960923 AU 1996-47792 19960305
AU 689028 B2 19980319
EP 815233 A1 19980107 EP 1996-903831 19960305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, FI
US 6083724 A 20000704 US 1997-765381 19970425
US 2003099610 A1 20030529 US 1999-443218 19991119
US 6642032 B2 20031104
PRIORITY APPLN. INFO.: AU 1995-1542 A 19950306
 AU 1993-8297 A 19930414
 WO 1994-AU189 W 19940414
 US 1995-448617 A2 19950908
 WO 1996-AU114 W 19960305
 US 1997-765381 A2 19970425
 US 1999-272032 A2 19990318

AB The present invention relates generally to recombinant polypeptides having avian cytokine properties or avian cytokine-like properties and to genetic sequences encoding same. More particularly, the present invention is directed to recombinant avian Type II interferon polypeptides and specifically to avian interferon- γ (IFN- γ) and derivs., homologues and analogs thereof and uses of same as an immune response modulator and as a growth enhancing agent. Interferon- γ -producing chicken T cell lines were prepared from reticulendotheliosis virus-transformed spleen cell cultures. The cDNA for chicken interferon- γ was cloned from a cDNA library of one of these cell lines. This cDNA was expressed in *Escherichia coli*. The recombinant interferon promoted growth of chickens and prevented weight loss during pathogenic infections (e.g. with *E. acervulina* or infectious bursal disease virus).

L10 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 11 Mar 1995

ACCESSION NUMBER: 1995:410067 HCAPLUS

DOCUMENT NUMBER: 122:234245

TITLE: Three-dimensional structure prediction of the NAD binding site of proton-pumping transhydrogenase from *Escherichia coli*

AUTHOR(S): Fjellstroem, Ola; Olausson, Torbjoern; Hu, Xiang; Kaellebring, Bruno; Ahmad, Suhail; Bragg, Philip D.; Rydstroem, Jan

CORPORATE SOURCE: Dep. Biochem. Biophys., Goeteborg Univ. Chalmers Inst. Technol., Goeteborg, S-413 90, Swed.

SOURCE: Proteins: Structure, Function, and Genetics (1995), 21(2), 91-104

Searcher : Shears 571-272-2528

CODEN: PSFGEY; ISSN: 0887-3585
PUBLISHER: Wiley-Liss
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A three-dimensional structure of the NAD site of *Escherichia coli* transhydrogenase has been predicted. The model is based on anal. of conserved residues among the transhydrogenases from five different sources, homologies with enzymes using NAD as cofactors or substrates, **hydrophilicity** profiles, and secondary structure predictions. The present model supports the hypothesis that there is one binding site, located relatively close to the N-terminus of the α -subunit. The proposed structure spans residues α 145 to α 287, and it includes five β -strands and five α -helices oriented in a typical open twisted α/β conformation. The amino acid sequence following the GXGXXG dinucleotide binding consensus sequence (residues α 172 to α 177) correlates exactly to a typical fingerprint region for ADP binding $\beta\alpha\beta$ folds in dinucleotide binding enzymes. In the model, aspartic acid α 195 forms hydrogen bonds to one or both hydroxyl groups on the adenosine ribose sugar moiety. Threonine α 196 and alanine α 256, located at the end of β B and β D, resp., create a hydrophobic sandwich with the adenine part of NAD buried inside. The nicotinamide part is located in a hydrophobic cleft between α A and β E. Mutagenesis work has been carried out to test the predicted model and to determine whether residues within this domain are important for proton pumping directly. All data support the predicted structure, and no residue crucial for proton pumping was detected. Since no three-dimensional structure of transhydrogenase has been solved, a well based tertiary structure prediction is of great value for further exptl. design in trying to elucidate the mechanism of the energy-linked proton pump.

L10 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 28 Jun 1991

ACCESSION NUMBER: 1991:245594 HCAPLUS

DOCUMENT NUMBER: 114:245594

TITLE: Cross-protection against four species of chicken coccidia with a single recombinant antigen
AUTHOR(S): Crane, Mark S. J.; Goggin, Bambi; Pellegrino, Ronald M.; Ravino, Owen J.; Lange, Christine; Karkhanis, Yashwant D.; Kirk, Karen E.; Chakraborty, Prasanta R.

CORPORATE SOURCE: Dep. Biochem. Parasitol., Merck, Sharp and Dohme Res. Lab., Rahway, NJ, 07065, USA

SOURCE: Infection and Immunity (1991), 59(4), 1271-7

CODEN: INFIBR; ISSN: 0019-9567

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A cDNA clone, SO7', from an *Eimeria tenella* cDNA library was inserted into the high-expression vector pJC264 and was expressed in *Escherichia coli* as a fusion protein, CheY-SO7', with a mol. mass of approx. 36 kDa. By using the purified recombinant antigen to immunize young chicks, it was demonstrated that a single dose, without **adjuvant**, not only protected against severe coccidiosis induced by infection with *E. tenella* but also protected chicks challenged with the heterologous species *E. acervulina*, *E. maxima*, and *E. necatrix*. By using rabbit antiserum raised against recombinant CheY-SO7', Western blot (immunoblot) anal. of

sporulated oocysts of all 7 major species of chicken coccidia showed that all species tested contained proteins characteristic of the B class of antigens, of which CheY-SO7' is representative. It seems likely that a single B antigen could protect chickens against severe coccidiosis caused by infection with any of these *Eimeria* species. Although chicks exposed to prolonged, natural infection develop antibodies to B antigen, active **immunization** of young chicks with a protective dose of CheY-SO7' does not elicit a humoral antibody response, suggesting that the partial protection results from cell-mediated effector mechanisms. In addition, the cross-protective nature of the immunity indicates that the response to B antigen is different from that induced by natural infection, which elicits a species-specific immunity. To date, the protection induced by B antigen **immunization**, although remarkable for a single recombinant protein, is not sufficient to compete with prophylactic chemotherapy.

L10 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 13 Oct 1990

ACCESSION NUMBER: 1990:530209 HCAPLUS

DOCUMENT NUMBER: 113:130209

TITLE: Genetically engineered antigen confers partial protection against avian coccidial parasites

AUTHOR(S): Danforth, H. D.; Augustine, P. C.; Ruff, M. D.; McCandliss, R.; Strausberg, R. L.; Likel, M.

CORPORATE SOURCE: Livest. Poult. Sci. Inst., Agric. Res. Serv., Beltsville, MD, 20705, USA

SOURCE: Poultry Science (1989), 68(12), 1643-52

CODEN: POSCAL; ISSN: 0032-5791

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A fusion protein of β -galactosidase and *Eimeria tenella* produced in a recombinant *Escherichia coli* strain was injected into chickens and elicited partial protection against an oral challenge with *E. tenella* parasites. The fusion protein contained a 31 kilodalton (kD) coccidial antigen designated as 5401. This protein segment was highly neg. charged and strongly **hydrophilic**, and contained an amino-acid sequence repeated five times. **Immunizing** chickens with a single s.c. injection of the 5401 antigen at 1,200 to 4,800 ng/bird in Freund's complete **adjuvant** decreased lesion scores, mortality, and feed conversions compared to unimmunized, challenged controls. In response to the 1,200 and 2,400 ng/bird of the 5401 antigen, group weight gains were higher than for the unimmunized, challenged birds. In three other trials using the 5401 antigen at 2,400 ng/bird with light, medium, and heavy coccidial infections, significant protection was evidenced by reduced lesion scores, increased individual weight gains, or both. Feed conversions were reduced when compared with unimmunized controls or birds **immunized** with a noncoccidial protein *E. coli* extract. Western blot anal. of sporozoite prepns. with serum from 5401-**immunized** birds labeled two antigenic bands of 66 and less than 200 kD. Thus, the coccidial proteins produced in *E. coli* are potentially effective immunogens for protecting chickens against avian coccidiosis.

L10 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 28 Apr 1990

ACCESSION NUMBER: 1990:153059 HCAPLUS

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DOCUMENT NUMBER: 112:153059
TITLE: Cloning of antigenic protein genes of Eimeria and use of the recombinant antigens as **vaccines** in chickens.
INVENTOR(S): Jenkins, Mark C.; Lillehoj, Hyun S.; Dame, John B.; Danforth, Harry D.; Ruff, Michael D.
PATENT ASSIGNEE(S): United States Dept. of Agriculture, USA
SOURCE: U. S. Pat. Appl., 51 pp. Avail. NTIS Order No. PAT-APPL-7-308 219.
CODEN: XAXXAV
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 308219	A0	19890701	US 1989-308219	19890209
US 5122471	A	19920616		
US 155264	A0	19881015	US 1988-155264	19880212
PRIORITY APPLN. INFO.:			US 1988-155264	19880212

AB Several Eimeria genes or gene fragments encoding antigenic proteins are identified by screening a cDNA expression library with antibodies against Eimeria antigens. The antigenicity is then confirmed by preparing the identified antigens and screening them with white blood cells sensitized to an antigenic Eimeria protein which effects a cell-mediated immune response. DNA sequences encoding antigens inducing a cell-mediated immune response to avian coccidiosis are thereby identified. These antigens may be used as **vaccines** for chickens. Clone MA1 encoded on antigen of 22 kilodaltons expressed only in sporozoites. One day old chicks were **immunized** s.c. with 1.0 µg MA1/bird emulsified in complete Freund's **adjuvant**. Seven days later they were given a booster **immunization**, and 2 wk later they were challenged with an oral dose of 2 + 10⁵ **E. acervulina** oocysts. Six days post-challenge, the chicks were killed. The lesion score and feed conversion for the **immunized** chicks were 1.0 and 1.99, resp., vs. 2.2 and 2.37 for nonimmunized control chicks.

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L11 159 SEA ABB=ON PLU=ON L2
L12 604 SEA ABB=ON PLU=ON L3
L13 0 SEA ABB=ON PLU=ON L4
L14 217 SEA ABB=ON PLU=ON (L11 OR L12) AND (IMMUNIS? OR IMMUNIZ?
OR VACCIN? OR ADJUVANT)
L15 4 SEA ABB=ON PLU=ON L14 AND (HYDROPHIL? OR HYDRO PHIL?)
L16 0 SEA ABB=ON PLU=ON L14 AND (FREEZ?(W) (DRIED OR DRY?) OR
LYOPHIL?)
L17 217 SEA ABB=ON PLU=ON (L11 OR L12) AND (IMMUNIS? OR IMMUNIZ?
OR VACCIN?)
L18 29 SEA ABB=ON PLU=ON L17 AND ADJUVANT
L19 29 SEA ABB=ON PLU=ON L15 OR L18
L20 16 DUP REM L19 (13 DUPLICATES REMOVED)

L20 ANSWER 1 OF 16 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-649547 [66] WPIDS
DOC. NO. CPI: C2005-195670
TITLE: New immunogenic or vaccine composition
comprising a vaccine, an adjuvant
comprising a peanut skin extract and a carrier,
useful for stimulating acquisition of protective
immunity.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): FULLER, A L; MCDOUGALD, L R
PATENT ASSIGNEE(S): (UYGE-N) UNIV GEORGIA RES FOUND INC
COUNTRY COUNT: 109
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2005089262	A2	20050929	(200566)*	EN	37
RW:	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS				
	IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR				
	TZ UG ZM ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ				
	DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP				
	KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA				
	NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN				
	TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

Searcher	:	Shears	571-272-2528

10/723123

WO 2005089262 A2

WO 2005-US8400

20050314

PRIORITY APPLN. INFO: US 2004-552636P 20040312

AN 2005-649547 [66] WPIDS

AB WO2005089262 A UPAB: 20051014

NOVELTY - An immunogenic or **vaccine** composition comprising a **vaccine**, an **adjuvant** comprising a peanut skin extract and a pharmaceutically effective carrier, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of stimulating acquisition of protective immunity comprising administering an effective amount of peanut skin extract prior to **vaccination** with an effective amount of a **vaccine** to stimulate acquisition of protective immunity in a chicken.

ACTIVITY - Protozoacide; Virucide.

MECHANISM OF ACTION - **Vaccine**.

USE - The immunogenic composition is useful for stimulating acquisition of protective immunity, especially for **vaccination** against *Eimeria acervulina*, *E. maxima*, *E. mitis* or *E. tenella*, **infectious bronchitis**, infectious bursal disease, laryngotracheitis, Marek's disease or **Newcastle disease** (claimed).

ADVANTAGE - Peanut skin extract provides improvements in response of chicks to **vaccination** if extracts are injected in ovo. The extracts have a strong immunostimulatory effect on the protective effects of live coccidiosis **vaccines**, without adverse effects on production parameters.

Dwg.0/0

L20 ANSWER 2 OF 16 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-618057 [63] WPIDS

DOC. NO. CPI: C2005-185681

TITLE: Immunogenic or **vaccine** composition useful for stimulating acquisition of protective immunity in chickens e.g. chicken embryo and newly hatched chicken comprises a **vaccine**, an **adjuvant** containing a peanut skin extract, and a carrier.

DERWENT CLASS: B04 C06 D16

INVENTOR(S): FULLER, A L; MCDOUGALD, L R

PATENT ASSIGNEE(S): (FULL-I) FULLER A L; (MCDO-I) MCDOUGALD L R

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005202041	A1	20050915	(200563)*		16

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005202041	A1 Provisional	US 2004-552650P	20040312
		US 2005-79559	20050314

PRIORITY APPLN. INFO: US 2004-552650P 20040312; US

2005-79559 20050314

AN 2005-618057 [63] WPIDS

Searcher : Shears 571-272-2528

AB US2005202041 A UPAB: 20051003

NOVELTY - An immunogenic or **vaccine** composition (C1) comprises a **vaccine**, an **adjuvant** containing a peanut skin extract and a carrier.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for stimulating (M1) acquisition of protective immunity involving: administering a peanut skin extract prior to **vaccination** with a **vaccine** to stimulate acquisition of protective immunity in a chicken.

ACTIVITY - None given.

MECHANISM OF ACTION - **Vaccine**.

Immunostimulatory effect of peanut skin extract (PSE) on coccidiosis **vaccine** was tested.

Peanut skin extract (PSE) was extracted from raw peanut skins by boiling in distilled water; and then dried by cryo-evaporation. The resulting residue was diluted with physiological saline to a wide range of concentrations (60 - 1000 mcg) and tested for toxicity to 18-day old chicken embryos. A laboratory strain of **Eimeria tenella** was used as live coccidiosis **vaccine** (1000 oocysts per bird) and was given by oral gavage to day-old chicks. At 28 days of age, each bird was challenged by inoculation of virulent cecal coccidia or kept as unchallenged controls. Six days post-challenge birds were euthanized for necropsy and lesion score. Weight gains were calculated. The **vaccine** used alone was only partially protective by a modest increase in weight gain and lower lesion scores as compared with unvaccinated control. Administration of PSE improved weight gain even at the lowest level (60 mcg). Highest level of PSE gave better weight gain and also improvement in lesion scores. These results demonstrated that over 60 - 1000 mu g of extract/embryo the PSE was safe and effective as immunomodulator for coccidiosis **vaccine**.

USE - As immunogenic or **vaccine** composition e.g. as an **infectious bronchitis vaccine**, **infectious bursal disease vaccine**, **laryngotracheitis vaccine**, **Marek's disease vaccine**, **Newcastle disease vaccine**, and coccidiosis **vaccine** for stimulating acquisition of protective immunity in chickens such as chicken embryo (e.g. 18 day old chicken embryo), newly hatched chicken and one day old chicken (claimed).

ADVANTAGE - The composition can be used concurrently with conventionally applied **vaccines** and hatchery practices; improves performance of **vaccines** without damaging hatchability or performance parameters of broiler chickens. The peanut skin extract provides improvements in response of chicks to **vaccination**; has a strong immunostimulatory effect on the protective effects of live coccidiosis **vaccines**, without adverse effects on production parameters. The composition provides apparent stability to heat, and the readily available raw material; can be produced within economically acceptable parameters, while improving the value of the raw material to the producer.

Dwg.0/0

L20 ANSWER 3 OF 16 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:498493 SCISEARCH

THE GENUINE ARTICLE: 922WP

TITLE: In ovo administration of CpG oligodeoxynucleotides and the recombinant microneme protein MIC2 protects against *Eimeria* infections

10/723123

AUTHOR: Dalloul R A; Lillehoj H S (Reprint); Klinman D M; Ding X C; Min W; Heckert R A; Lillehoj E P
CORPORATE SOURCE: USDA ARS, Anim Parasit Dis Lab, Anim & Nat Resources Inst, BARC E, Bldg 1040, Beltsville, MD 20705 USA (Reprint); USDA ARS, Anim Parasit Dis Lab, Anim & Nat Resources Inst, Beltsville, MD 20705 USA; US FDA, Ctr Biol Evaluat & Res, Sect Retroviral Immunol, Bethesda, MD 20892 USA; Sunchon Natl Univ, Dept Anim Sci, Choongnam 540742, South Korea; Univ Maryland, Sch Pharm, Dept Pharmaceut Sci, Baltimore, MD 21201 USA hlilleho@anri.barc.usda.gov
COUNTRY OF AUTHOR: USA; South Korea
SOURCE: VACCINE, (2 MAY 2005) Vol. 23, No. 24, pp. 3108-3113. ISSN: 0264-410X.
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 34
ENTRY DATE: Entered STN: 22 May 2005
Last Updated on STN: 22 May 2005

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We have previously demonstrated that short oligodeoxynucleotides containing unmethylated CpG motifs (CpG ODNs) exert a positive effect on weight loss and oocyst shedding associated with *Eimeria* infection when injected in vivo. The present work investigated the effects of in ovo **vaccination** with CpG ODNs and an *Eimeria* recombinant microneme protein (MIC2), alone or in combination, on susceptibility to coccidiosis. In ovo injection of CpG ODNs alone enhanced resistance to experimental *Eimeria acervulina* infection as best exemplified by reduced oocyst shedding. Two CpG ODNs reduced the oocyst load, but did not affect weight gain. When co-administered with the recombinant microneme protein, both ODNs reduced oocyst shedding; however, only ODN D 19 plus MIC2 consistently improved weight gain. **Vaccinating** with ODN 2006 or MIC2 protein curtailed oocyst shedding but did not enhance weight gain in *Eimeria tenella*-infected birds. Co-administration of CpG ODN and MIC2 did not have an additive effect in reducing the oocyst output; however, it resulted in the highest and lowest Ab response before and after *Eimeria tenella* infection, respectively. Collectively, CpG ODNs administered in ovo demonstrated immunoenhancing and **adjuvant** effects following *Eimeria* infections. Published by Elsevier Ltd.

L20 ANSWER 4 OF 16 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:653136 SCISEARCH

THE GENUINE ARTICLE: 937TT

TITLE: Resistance to intestinal coccidiosis following DNA **immunization** with the cloned 3-1E *Eimeria* gene plus IL-2, IL-15, and IFN-gamma

AUTHOR: Lillehoj H S (Reprint); Ding X C; Quiroz M A; Bevenssee E; Lillehoj E P

CORPORATE SOURCE: USDA ARS, Anim Parasit Dis Lab, Anim & Nat Resources Inst, Beltsville, MD 20705 USA (Reprint); AviTech LLC, Hebron, MD 21803 USA; Univ Maryland, Sch Pharm, Dept Pharmaceut Sci, Baltimore, MD 21201 USA

COUNTRY OF AUTHOR: USA

SOURCE: AVIAN DISEASES, (MAR 2005) Vol. 49, No. 1, pp. 112-117

Searcher : Shears 571-272-2528

10/723123

ISSN: 0005-2086.
PUBLISHER: AMER ASSOC AVIAN PATHOLOGISTS, 953 COLLEGE STATION RD,
ATHENS, GA 30602-4875 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 48
ENTRY DATE: Entered STN: 8 Jul 2005
Last Updated on STN: 8 Jul 2005

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A cloned *Eimeria acervulina* gene (3-1E) was used to **vaccinate** chickens in ovo against coccidiosis, both alone and in combination with genes encoding interleukin (IL)-1, IL-2, IL-6, IL-8, IL-15, IL-16, IL-17, IL-18, or interferon (IFN)-gamma. **Vaccination** efficacy was assessed by increased serum anti-3-1E antibody titers, reduced fecal oocyst shedding, and enhanced body weight gain following experimental infection with *E. acervulina*. When used alone, anti-3-1E antibody titers were transiently, but reproducibly, increased at 2 wk and 3 wk posthatching in a dose-dependent manner. Similarly, significantly reduced oocyst shedding and increased weight gain were observed at relatively high-dose 3-1E **vaccinations** (≥ 25 μ g/egg). Combined **immunization** with the 3-1E and IL-1, IL-2, IL-15, or IFN-gamma genes induced higher serum antibody responses compared with **immunization** with 3-1E alone. Following parasite infection, chickens hatched from embryos given the 3-1E gene plus the IL-2 or IL-15 genes displayed significantly reduced oocyst shedding compared with those given 3-1E alone, while 3-1E plus IL-15 or IFN-gamma significantly increased weight gain compared with administration of 3-1E alone. Taken together, these results indicate that in ovo **immunization** with a recombinant *Eimeria* gene in conjunction with cytokine **adjuvants** stimulates protective intestinal immunity against coccidiosis.

L20 ANSWER 5 OF 16 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:570964 SCISEARCH

THE GENUINE ARTICLE: 452JN

TITLE: Immune responses and resistance to *Eimeria acervulina* of chickens divergently selected for antibody responses to sheep red blood cells

AUTHOR: Parmentier H K (Reprint); Abuzeid S Y; Reilingh G D; Nieuwland M G B; Graat E A M

CORPORATE SOURCE: Univ Wageningen & Res Ctr, Wageningen Inst Anim Sci, Hlth & Reprod Grp, POB 338, NL-6700 AH Wageningen, Netherlands (Reprint); Univ Wageningen & Res Ctr, Wageningen Inst Anim Sci, Hlth & Reprod Grp, NL-6700 AH Wageningen, Netherlands; Univ Wageningen & Res Ctr, Wageningen Inst Anim Sci, Quantitat Vet Epidemiol Grp, NL-6700 AH Wageningen, Netherlands

COUNTRY OF AUTHOR: Netherlands

SOURCE: POULTRY SCIENCE, (JUL 2001) Vol. 80, No. 7, pp. 894-900.

ISSN: 0032-5791.

PUBLISHER: POULTRY SCIENCE ASSOC INC, 1111 NORTH DUNLAP AVE, SAVOY, IL 61874-9604 USA.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 29

Searcher : Shears 571-272-2528

10/723123

ENTRY DATE: Entered STN: 27 Jul 2001
Last Updated on STN: 27 Jul 2001
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Resistance to *Eimeria acervulina* was measured in two lines of chickens that had been divergently selected for high (H line) or low (L line) antibody (Ab) responses to SRBC, and in a randombred control (C) line originating from the same parental stock. Fecal oocyst output of cocks from the three lines from the 17th generation was estimated after primary and secondary infection with 2×10^5 oocysts. In addition, Ab responses to *E. acervulina* oocyst antigen and cellular immune responses in vitro to *E. acervulina* antigen were measured after primary and secondary infection with *E. acervulina*.

No significant line differences were found with respect to fecal oocyst output after primary infection. Only at the end of the primary infection period, i.e., Day 15 postprimary infection, was a significantly lower fecal oocyst output found in the H line as compared to the C and L lines. After secondary infection, significantly higher fecal oocyst output was found in the C line. Significantly higher Ab response after primary and secondary infection were found in the H and C lines as compared to the L line. No line differences were found for cellular immune responses to *E. acervulina* oocyst antigen.

These observations imply that selection for enhanced humoral immunity to SRBC did not result in enhanced resistance to *E. acervulina* in terms of fecal oocyst output. However, the H line might expel *E. acervulina* more rapidly than the other two lines. The absence of line differences in resistance to *Eimeria* is discussed with respect to the role of the humoral immune response.

L20 ANSWER 6 OF 16 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2001054941 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10879919
TITLE: A recombinant *Eimeria* protein inducing interferon-gamma production: comparison of different gene expression systems and immunization strategies for vaccination against coccidiosis.
AUTHOR: Lillehoj H S; Choi K D; Jenkins M C; Vakharia V N; Song K D; Han J Y; Lillehoj E P
CORPORATE SOURCE: Immunology and Disease Resistance Laboratory, Livestock and Poultry Sciences Institute, BARC-East, U.S. Department of Agriculture, Beltsville, MD 20705, USA.
SOURCE: Avian diseases, (2000 Apr-Jun) 44 (2) 379-89.
Journal code: 0370617. ISSN: 0005-2086.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF113613
ENTRY MONTH: 200012
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001214

AB A rabbit antiserum against an 18- to 27-kD native protein fraction (F3) from *Eimeria acervulina* merozoites identified a cDNA (3-1E) containing a 1086-base pair insertion with an open reading frame of 170 amino acids (predicted molecular weight, 18,523).

Searcher : Shears 571-272-2528

The recombinant 3-1E cDNA expressed in *Escherichia coli* produced a 60-kD fusion protein and a 23-kD protein after factor Xa treatment of the fusion protein. Both proteins were reactive with the F3 antiserum by western blot analysis. A rabbit antiserum against a synthetic peptide deduced from the amino acid sequence of the 3-1E cDNA reacted with a 27-kD recombinant 3-1E protein expressed in Sf9 insect cells and a 20-kD native protein expressed by *E.*

acervulina sporozoites and *Eimeria tenella* sporozoites and merozoites. By immunofluorescence staining, a monoclonal antibody produced against the recombinant 3-1E protein reacted with sporozoites and merozoites of *E.*

acervulina, *E. tenella*, and *Eimeria* maxima. Spleen lymphocytes from *E. acervulina*-immune chickens showed antigen-specific proliferation and interferon (IFN)-gamma production upon stimulation with the recombinant 3-1E protein, indicating that the protein activates cell-mediated immunity during coccidiosis. Immunization of chickens with either the *E. coli*- or Sf9-expressed recombinant 3-1E protein with adjuvant, or direct injection of the 3-1E cDNA, induced protective immunity against live *E. acervulina*. Simultaneous injection of the recombinant 3-1E protein, or the 3-1E cDNA, with cDNAs encoding chicken IFN-gamma or interleukin (IL)-2/15 further enhanced protective immunity. These results indicate that the recombinant *E. acervulina* 3-1E cDNA or its polypeptide product may prove useful as vaccines against avian coccidiosis.

L20 ANSWER 7 OF 16 CABA COPYRIGHT 2005 CABI on STN

ACCESSION NUMBER: 2000:75417 CABA
DOCUMENT NUMBER: 20002212275
TITLE: Vaccination against coccidiosis with
S07 recombinant antigen of *Eimeria*
tenella BJ strain
AUTHOR: Li AnXing; Jiang JinShu; Li, A. X.; Jiang, J. S.
CORPORATE SOURCE: China Agricultural University, Beijing 100094,
China.
SOURCE: Chinese Journal of Veterinary Science, (2000)
Vol. 20, No. 2, pp. 167-170. 18 ref.
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20000609
Last Updated on STN: 20000609

AB The expression vector, pTHioHisS07, constructed by inserting the S07 gene into pTHioHisB vector, was expressed in *E. coli* DH5[alpha] and induction by IPTG. The pTHioHisS07 protein, approximately 40 000 kDa, was expressed in *E. coli* at high level (17.1% of protein detected on Coomassie blue stained gels). The *E. coli* mutant containing pTHioHisS07 was sonicated. Alum adjuvant was added to a final concentration of 1%. Chicks were vaccinated at 4, 11, or 17 days of age with the S07 recombinant antigen at 100 [micro]g (high dose) or 10 [micro]g (low dose). Inoculated and non-inoculated birds were challenged with 3x10⁴ sporulated oocysts of *E. tenella* at 25 days of age. The results showed that S07 recombinant antigen with adjuvant at 100 [micro]g gave partial protection against coccidiosis shown by a decrease of 30% in caecal lesion scores. The 10 [micro]g of dose gave no protection.

L20 ANSWER 8 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1993-61380 VETU
 TITLE: Detection of Mucosal Immune Responses in Chickens After
Immunization or Infection.
 AUTHOR: Zigterman G J W J; Ven W van de; Geffen C van; Loeffen A
 H C; Panhuijzen J H M; Rijke E O
 CORPORATE SOURCE: INTERVET
 LOCATION: Boxmeer, Neth.
 SOURCE: Vet.Immunol.Immunopathol. (36, No. 3, 281-91, 1993) 5
 Tab. 25 Ref.
 CODEN: VIIMDS
 AVAIL. OF DOC.: Intervet International B.V., Department of Immunology,
 P.O.B. 31, 5830 AA Boxmeer, Netherlands. (7 authors).
 LANGUAGE: English
 DOCUMENT TYPE: Journal
 FIELD AVAIL.: AB; LA; CT
 AN 1993-61380 VETU

AB In order to measure mucosal antibody responses in the chicken
 intestine an ELISA-based assay was developed that was able to detect
 antigen-specific antibodies in an isotype-specific way. Locally
 produced antibodies could be detected after overnight culture at 37
 deg. **Immunization** of chickens i.p. and intracloacally with
 E. coli K99 pilus antigen (Intervet) with aluminum
 phosphate (Superfos) **adjuvant** or p.o. infection with
Eimeria tenella led to intestinal IgA, IgM and IgG
 antibody release. IgA release was inhibited by cytochalasine B,
 cycloheximide, puromycin, and incubation at 4 deg. This assay can
 estimate the mucosal antibody response in experimental conditions
 where antibody levels in bile or intestinal contents are not
 significantly changed.

ABEX SPF White Leghorn chickens (4-6 wk-old) received K99 antigen 20 ug
 i.p. on day 0 and 1000 ug intracloacally on day 14, with 1.8% ALPO4
 as **adjuvant**. Intestinal tissue was isolated 7-13 days
 after the booster and antibody levels measured by ELISA. Duodenum 4
 wk after priming released significant levels of IgM and IgG, but
 nonsignificant levels of IgA (A450 in ELISA with vs. without
immunization 0.089 vs. 0.023, 0.336 vs. 0.033 and 0.163 vs.
 0.104, respectively). Only IgA was sensitive to inhibition by
 metabolic inhibitors and low temperature. With a shorter interval
 between boost and tissue removal, increased IgA release was seen.
 Other chickens received p.o. **E. tenella** oocysts,
 tissue being collected 10 days later. Increased IgM and IgG, but not
 IgA, levels were seen in serum of infected animals (10.3 vs. 8, 12.4
 vs. 9.2 and 4.5 vs. 4.6 2log ELISA titers, respectively). IgA
 antibodies were seen in cecal contents but not in cystic bile (4 vs.
 0.2 and 9.3 vs. 9 2log ELISA titers, respectively). Infected cecum
 released more IgA, IgG and IgM than uninfected tissue (1.11 vs. 0.47,
 1.45 vs. 1.09 and 1.16 vs. 0.6 ln (A450) in ELISA, respectively).
 Both duodenum and cecum showed greater antibody release of all
 isotypes after infection, however, release of IgA and IgG was
 greatest in cecum, while IgM release was similar in both tissues.
 After infection, release of IgM and IgA was inhibited by incubation
 at 4 deg.

L20 ANSWER 9 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1993-60853 VETU
 TITLE: Concepts and Strategies for Anti-Parasite
 Immunoprophylaxis and Therapy.
 AUTHOR: Smith N C

10/723123

LOCATION: Zurich, Switz.
SOURCE: Int.J.Parasitol. (22, No. 8, 1047-82, 1992) 1 Fig. 1
Tab. 298 Ref.
CODEN: IJPYBT
AVAIL. OF DOC.: Institut fuer Parasitologie, Universitaet Zurich,
Winterthurerstrasse 266a, CH-8057 Zurich, Switzerland.
LANGUAGE: English
DOCUMENT TYPE: Journal
FIELD AVAIL.: AB; LA; CT
AN 1993-60853 VETU
AB Concepts and strategies for anti-parasite immunoprophylaxis and
therapy are reviewed. This is with reference to **vaccine**
types (attenuated organisms and recombinant antigens, synthetic
peptide **vaccines** and anti-idiotypic antibody
vaccines), antigen selection by induction of humoral and
cell-mediated immunity and parasite "Achilles Heels" as
vaccines, and **vaccine** presentation such as
adjuvants and viral and bacterial vectors. Non-specific
resistance and immunotherapy are also discussed.
ABEX A number of successful live parasite **vaccines** have been
documented using irradiated infective larvae (Dictol, against
Dictyocaulus viviparus), and against Ancylostoma caninum and
Schistosoma. Babesia bovis **vaccine** is based on injecting
parasitized erythrocytes whilst the Theileria **vaccine** is
based on attenuated T. annulata. Coccivac **vaccine** is used
against Eimeria sp. in chickens and consists of virulent oocysts as a
vaccine. Attenuation by DNA technology has been used to
develop new cholera **vaccines**. Recombinant antigens as
vaccines have also been developed for Plasmodium falciparum,
P. vivax, E. tenella and S. mansoni. Synthetic
peptides of defined epitopes could be potential **vaccine**
candidates against P. falciparum and P. vivax. Anti-idiotypic
antibody **vaccines** have been used to **vaccinate**
against Trypanosoma sp. Antigen selection by induction of humoral
and cell-mediated immunity has led to the identification of many
potential **vaccine** candidates against S. japonicum, S.
mansoni, and P. falciparum. Parasite "Achilles Heels" (ie a molecule
not normally immunogenic but critical for the parasites well-being)
as **vaccines** have potential use. The GSH S-transferases of
Schistosoma sp. fulfill this criterion. Presentation of sub-unit
vaccines is vital. **Adjuvants** such as aluminum
hydroxide gels, Freund's **Adjuvant**, polysaccharides,
proteosomes, liposomes and cytokines are available for experimental
use. The **vaccinia** virus vector is effective as are
Salmonella mutants as expression vectors. Non-specific
immunomodulators induce protection against cestodes.

L20 ANSWER 10 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1993-60211 VETU
TITLE: Enhancing Broiler Immune Response.
AUTHOR: ---
LOCATION: USA
SOURCE: Broiler Ind. (55, No. 9, 28, 32, 34, 36, 1992) 2 Tab. 2
Plates
AVAIL. OF DOC.: No Reprint Address.
LANGUAGE: English
DOCUMENT TYPE: Journal
FIELD AVAIL.: AB; LA; CT
AN 1993-60211 VETU

Searcher : Shears 571-272-2528

10/723123

- AB The use of acemannan to boost the immune response of broilers is discussed. It has been shown to be an effective **adjuvant** with Marek's disease **vaccine** (turkey herpesvirus), **Newcastle disease vaccine**, infectious bursal disease **vaccine** and a genetically engineered **Eimeria tenella** antigen. Reduced mortality rates and improved performance has been observed, resulting in greater economic return for broiler producers.
- ABEX Acemannan is isolated from the plant Aloe vera and is licensed as an **adjuvant**. Acemannan was found to be readily taken up by immune cells that attack viruses such as infectious bursal disease virus, resulting in a greatly enhanced immune response. S.c. **vaccination** of chickens with a Marek's disease **vaccine** plus acemannan at 1-day of age provided better protection (33%) 3 days sooner when challenged 1, 2, 3 and 4 days postvaccination compared with Marek's disease **vaccine** only. Acemannan does not have immunostimulating properties with every **vaccination**/challenge system, but been shown effective with Marek's disease **vaccine**, **Newcastle disease vaccine** and infectious bursal disease **vaccine**. Improved results have also been achieved when acemannan was added to a recombinant **Eimeria tenella** coccidiosis antigen. An advantage of acemannan is that it breaks down in the body leaving no chemical residues. Comparison of performance data of birds treated with Marek's disease **vaccine** (HVT) with or without acemannan showed that the **adjuvant**-treated birds had a 0.85% lower mortality rate, a 0.44% better condemnation rate, 3.45 points lower feed conversion and better body weights. The return to operators was considered to be about 3-4 US dollars for every dollar invested.

L20 ANSWER 11 OF 16 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 91169596 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2004809
TITLE: Cross-protection against four species of chicken coccidia with a single recombinant antigen.
AUTHOR: Crane M S; Goggin B; Pellegrino R M; Ravino O J; Lange C; Karkhanis Y D; Kirk K E; Chakraborty P R
CORPORATE SOURCE: Department of Biochemical Parasitology, Merck, Sharp and Dohme Research Laboratories, Rahway, New Jersey 07065.
SOURCE: Infection and immunity, (1991 Apr) 59 (4) 1271-7.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199104
ENTRY DATE: Entered STN: 19910512
Last Updated on STN: 19910512
Entered Medline: 19910425

- AB A cDNA clone, SO7', from an **Eimeria tenella** cDNA library was inserted into the high-expression vector pJC264 and was expressed in *Escherichia coli* as a fusion protein, CheY-SO7', with a molecular mass of approximately 36 kDa. By using the purified recombinant antigen to **immunize** young chicks, it was demonstrated that a single dose, without **adjuvant**, not only protected against severe coccidiosis induced by infection with **E. tenella** but also protected chicks

Searcher : Shears 571-272-2528

challenged with the heterologous species *Eimeria acervulina*, *E. maxima*, and *E. necatrix*. By using rabbit antiserum raised against recombinant CheY-SO7', Western blot (immunoblot) analysis of sporulated oocysts of all seven major species of chicken coccidia showed that all species tested contained proteins characteristic of the B class of antigens, of which CheY-SO7' is representative. It seems likely that a single B antigen could protect chickens against severe coccidiosis caused by infection with any of these *Eimeria* species. Although chicks exposed to prolonged, natural infection develop antibodies to B antigen, active immunization of young chicks with a protective dose of CheY-SO7' does not elicit a humoral antibody response, suggesting that the partial protection results from cell-mediated effector mechanisms. In addition, the cross-protective nature of the immunity indicates that the response to B antigen is different from that induced by natural infection, which elicits a species-specific immunity. To date, the protection induced by B antigen immunization, although remarkable for a single recombinant protein, is not sufficient to compete with prophylactic chemotherapy.

L20 ANSWER 12 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1991-60957 VETU T M Z
 TITLE: Is There a Future for **Vaccines** Against GI
 Worms. (Question.).
 (Is er een Toekomst voor **Vaccins** Tegen
 Maag-Darmwormen)
 AUTHOR: Bos H J; Schetters T
 LOCATION: Boxmeer, Neth.
 SOURCE: Tijdschr.Diergeneeskd. (115, No. 23, 1102-10, 1990) 1
 Fig. 4 Tab. 17 Ref.
 CODEN: TIDIAY
 AVAIL. OF DOC.: Intervet International B.V., Postbus 31, 5830 AA Boxmeer,
 The Netherlands.
 LANGUAGE: Dutch
 DOCUMENT TYPE: Journal
 FIELD AVAIL.: AB; LA; CT
 AN 1991-60957 VETU T M Z
 AB The value of **vaccination** against GI parasites, with
 reference to live, inactivated, subunit or recombinant DNA
vaccines against *Babesia*, *Toxoplasma*, *Plasmodium yoelii*,
Taenia ovis, *Haemonchus contortus*, *Eimeria tenella*
, *Dictyocaulus viviparus*, *Trichostrongylus colubriformis*, *Trichinella*
spiralis and *Oesophagostomum radiatum*, as well as Aujeszký, Salm.,
Yersinia, *Lactobac.*, cholera **vaccines** or
vaccination of intermediate hosts, such as *Boophilus*
microplus ticks in cattle (*Babesia*) are reviewed. Subunit,
recombinant or anti-idiotypic **vaccines** are easier to monitor
in production, but their therapeutic range is limited. *H. contortus*
subunit **vaccine** is ineffective on non-hematophagic
(*Ostertagia*) parasites, for example. **Adjuvants** like
avidine (AV) or saponin improve the mucosal immune response.
ABEX Live **vaccines** include those for lungworm, *Babesia* or
Toxoplasma and inactivated **vaccines** include killed parasite
types (*P. yoelii* for malaria) and subunit **vaccines** (*T.*
ovis, *filaria*, schistosome or trypanosome antigen or *H. contortus*).
Other possibilities include recombinant DNA vector **vaccines**
and intermediate host **vaccination** (for example of *B.*
microplus ticks, carriers of bovine *Babesia*). Control of subunit,
anti-idiotypic (*E. tenella*) or recombinant DNA

(colibacillosis) **vaccines** is simpler, but the spectrum is reduced. Live **vaccines**, notably recombinant or attenuated herpes viruses (Aujeszky), intestinal bacteria (deletion mutants of Salm., Yersinia or Lactobac.) or recombinant cholera toxin-beta produce a good response in GI mucosa, potentiated by **adjuvants**, like AV. Epitope selection eliminates side-effects. D. viviparus live **vaccine** acts on bovine lungworm, but must be given p.o. I.v. application causes antibody formation and hypersensitivity reactions (lung). Subunit **vaccines** produce no mucosal response. Subunit H. contortus **vaccine** using H11 concealed antigen protects against challenge from H. contortus, but not O. circumcincta. A recombinant T. ovis **vaccine** from excretion-secretion antigen (produced in E. coli) in saponin has recently induced good immunity. New developments include **vaccines** using tropomyosin (Trichostrongylus colubriformis) or stichocyte antigen (T. spiralis) and high molecular worm fractions or excretion-secretion antigens of Oe. radiatum (calves).

L20 ANSWER 13 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1990-62036 VETU M T

TITLE: **Vaccines and Vaccination - Past, Present and Future.**

AUTHOR: Biggs P M

LOCATION: Huntingdon, U.K.

SOURCE: Br.Poult.Sci. (31, No. 1, 3-22, 1990) Tab. 74 Ref. 1 Plate.

CODEN: BPOSA4

AVAIL. OF DOC.: 'Willows', London Road, St. Ives, Huntingdon, Cambridgeshire PE17 4ES, England.

LANGUAGE: English

DOCUMENT TYPE: Journal

FIELD AVAIL.: AB; LA; CT

AN 1990-62036 VETU M T

AB The early history of **vaccine** and **vaccination**, developments since 1900 (with reference to pigeon pox and fowlpox **vaccine**, **vaccines** against infectious laryngotracheitis, Newcastle disease, Marek's disease, **infectious bronchitis**, infectious bursal disease, egg drop syndrome-1976, and coccidiosis, and avian encephalomyelitis **vaccine**, **vaccines** in use today and advantages and disadvantages of currently available **vaccines** are reviewed. Desirable properties of poultry **vaccines** such as safety, quality and efficacy, required by the user and producer, are not completely fulfilled by currently available **vaccines**. There is a need to use modern technology and immunology to develop **vaccines** that can better fulfill the desirable properties of poultry **vaccines**.

ABEX The major viral diseases of the domestic fowl (pigeon pox, fowlpox, infectious laryngotracheitis, **Newcastle disease**, avian encephalomyelitis, infectious bursal disease, Marek's disease, egg drop syndrome-1976) were recognized during the 1920s and 1930s, with most **vaccines** being developed within 5 yr of virus discovery. Using beta-propiolactone increased antigenicity and the use of oil-based **adjuvants** improved the efficacy of inactivated **vaccines**. Current **vaccines** against coccidia are given p.o. Attenuation was first achieved by passage of **Eimeria tenella** in developing chick embryo. The **vaccine** is species-specific requiring all 7 species that

parasitize domestic fowl. Live **vaccines** should not be pathogenic and have no adverse effect on host such as reducing growth rate and productivity; should have a stated potency, and be kept in stable conditions free of unnecessary impurities and additives, provide significant degree of protection against mortality and morbidity caused by the disease in question and protect against subclinical disease; and be inexpensive. Inactivated **vaccines** are relatively safe, but parenteral administration makes them expensive. Incomplete inactivation is potentially dangerous. Live **vaccines** generally induced protective immunity rapidly, and are more likely to stimulate all the immune system, compared to inactivated **vaccines**. There is a risk of contamination with unknown infectious agents and a reversion to virulence of the **vaccine** organism. Advances in DNA technology and immunology can lead to the development of improved methods of disease control. 2.

L20 ANSWER 14 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1989-62651 VETU M G
 TITLE: Characterization and **Vaccine** Potential of a Novel Recombinant Coccidial Antigen.
 AUTHOR: Miller G A; Bhogal B S; McCandliss R; Strausberg R L; Jessee E J; Anderson A C
 CORPORATE SOURCE: Robins
 LOCATION: Richmond, Va.; Gaithersburg, Md., USA
 SOURCE: Infect.Immun. (57, No. 7, 2014-20, 1989) 6 Fig. 4 Tab. 25 Ref.
 CODEN: INFIBR
 AVAIL. OF DOC.: Molecular Biology Department, A.H. Robins Co., Richmond, Virginia 23220, U.S.A. (11 authors).
 LANGUAGE: English
 DOCUMENT TYPE: Journal
 FIELD AVAIL.: AB; LA; CT
 AN 1989-62651 VETU M G
 AB A cDNA clone derived from sporulated oocysts of **Eimeria tenella** and encoding the expression product GX3262 was cloned in bacteriophages, transferred to a plasmid and introduced into **E. coli**. Partially purified antigen, heat-killed recombinant bacterin, and live **E. coli** containing the recombinant coccidial antigen were used to **immunize** 1-wk-old or newly hatched broiler chicks p.o. or s.c. The greatest degree of protection was observed after a single s.c. **immunization** of 2-day-old birds with a live recombinant **E. coli** preparation in Alhydrogel (Superfos, Sergeant-Chemical) **adjuvant**. **Immunization** s.c. with partially purified GX3262 or heat killed bacterins gave some degree of protection.
 ABEX The cDNA clone was derived from sporulated oocysts of **E. tenella** and was cloned in bacteriophage lambda gt11. **E. coli** were used as host for the propagation of the phage. The antigen encoded by the phage was designated GX3262 and without beta-galactosidase (B-gal) was composed of 112 amino acids with a predicted molecular mass of 12 kDa. Chicks were **immunized** at 2 days or 1 wk age. For all **immunizations** antigen was diluted in 30% Alhydrogel. **Immunization** of 1-wk-old birds twice s.c. with 100 ug of B-galGX3262 resulted in significant protection against homologous challenge, with a reduction in lesion scores of 37% over controls. 1 **Immunization** with 100 g failed to provide such protection. Significant protection was also observed when birds were similarly **vaccinated** with 100 ug

of B-galGX3262 on days 1, 7, and 21 post hatch. A single **vaccination** of day old chicks with 100 g failed to protect the birds. Partial protection was observed in birds **vaccinated** with heat killed recombinant *E. coli* cells containing 100, 200, or 500 ug of B-galGX3262. Birds **vaccinated** at 2 days of age with 100 g of B-galGX3262 and then given a subclinical infection of 25 oocysts showed a good degree of protection. Best protection was observed after a single **vaccination** of 2-day-old birds with live recombinant *E. coli* containing the GX3262 antigen at doses comparable to those used in the other **immunizations**.

L20 ANSWER 15 OF 16 MEDLINE on STN DUPLICATE 3
 ACCESSION NUMBER: 90160107 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 2622819
 TITLE: Genetically engineered antigen confers partial protection against avian coccidial parasites.
 AUTHOR: Danforth H D; Augustine P C; Ruff M D; McCandliss R; Strausberg R L; Likel M
 CORPORATE SOURCE: United States Department of Agriculture, Agricultural Research Service, Beltsville, Maryland 20705.
 SOURCE: Poultry science, (1989 Dec) 68 (12) 1643-52.
 Journal code: 0401150. ISSN: 0032-5791.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199003
 ENTRY DATE: Entered STN: 19900601
 Last Updated on STN: 19900601
 Entered Medline: 19900323

AB A fusion protein of beta-galactosidase and *Eimeria tenella* produced in a recombinant *Escherichia coli* strain was injected into chickens and elicited partial protection against an oral challenge with *Eim. tenella* parasites. The fusion protein contained a 31 kilodalton (kD) coccidial antigen designated as 5401. The DNA sequencing of the 5401 antigen-coding sequence revealed that this protein segment was highly negatively charged and strongly **hydrophilic**, and contained an amino-acid sequence repeated five times. A dose-titration study showed that **immunizing** chickens with a single subcutaneous injection of the 5401 antigen at 1,200 to 4,800 nanograms (ng)/bird in Freund's complete **adjuvant** decreased lesion scores, mortality, and feed conversions compared to unimmunized, challenged controls. Using the 1,200 and 2,400 ng/bird of the 5401 antigen, group weight gains were higher than for the unimmunized, challenged birds. In three other trials using the 5401 antigen at 2,400 ng/bird with light, medium, and heavy coccidial infections, significant protection was evidenced by reduced lesion scores, increased individual weight gains, or both. In addition, feed conversions were reduced when compared with unimmunized controls or birds **immunized** with a noncoccidial protein *E. coli* extract. Western blot analysis of sporozoite preparations with serum from 5401-**immunized** birds labeled two antigenic bands of 66 and less than 200 kD. These results indicate that the coccidial proteins produced in *E. coli* are potentially effective immunogens for protecting chickens against avian coccidiosis.

L20 ANSWER 16 OF 16 VETU COPYRIGHT 2005 THE THOMSON CORP on STN

10/723123

ACCESSION NUMBER: 1988-62728 VETU M
TITLE: Combined Genetic Engineered Antigens Give Enhanced Protection Against *Eimeria tenella* Challenge.
AUTHOR: Danforth H D; Augustine P C; Strausberg R L
CORPORATE SOURCE: Genex
LOCATION: Beltsville; Gaithersburg, Md., USA
SOURCE: Poult.Sci. (67, Suppl. 1, 72, 1988)
CODEN: POSCAL
AVAIL. OF DOC.: Livestock and Poultry Sciences Institute, USDA, ARS, Beltsville, MD 20705 U.S.A.
LANGUAGE: English
DOCUMENT TYPE: Journal
FIELD AVAIL.: AB; LA; CT
AN 1988-62728 VETU M
AB A combination of 2 genetically engineered *Eimeria tenella* sporozoite antigens injected s.c. with Freund's complete **adjuvant** into chickens gave enhanced protection against coccidial challenge. (congress abstract).
ABEX A monoclonal antibody that recognized a 28 Kilodalton (Kd) protein of sporozoites of *E. tenella* was used to detect lambda-gt11 phase *E. coli* colonies that produced a 12 Kd segment of the same protein. This genetically engineered (GE) antigen, when injected s.c. with Freund's complete **adjuvant** at dose of 2.4 or 9.6 ug/bird into 4 wk old male Sex-Sal chickens, elicited little protein against a heavy *E. tenella* challenge at 4 wk post-immunization. With an increase in dosage to 19.2 ug/bird, some protection against heavy challenge was seen. A combination of 19.2 ug of this GE antigen with 2.4 ug/bird of a 2nd GE antigen that also elicited protection against an *E. tenella* infection increased the protective immune response. Average weight gains were not significantly different from immunized-unchallenged controls and lesion scores were significantly lower than the unimmunized-challenged birds. (CLW)

FILE 'USPATFULL' ENTERED AT 16:05:54 ON 04 NOV 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 3 Nov 2005 (20051103/PD)
FILE LAST UPDATED: 3 Nov 2005 (20051103/ED)
HIGHEST GRANTED PATENT NUMBER: US6961956
HIGHEST APPLICATION PUBLICATION NUMBER: US2005246811
CA INDEXING IS CURRENT THROUGH 3 Nov 2005 (20051103/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 3 Nov 2005 (20051103/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2005

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
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>>> publications, starting in 2001, for the inventions covered in <<<
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>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

Searcher : Shears 571-272-2528

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>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1      1494 SEA FILE=HCAPLUS ABB=ON PLU=ON (EIMERIA OR "E") (W) (COCCID
        IOS? OR TENELLA OR NECATRIX OR BRUNETTI OR MITIS OR
        ACERVUL?)
L21     89 SEA FILE=USPATFULL ABB=ON PLU=ON L1(L) (NEUROLYPHOMAT?
        OR NEURO LYMPHOMAT? OR FOWL PARALYSIS OR CELO VIRUS OR
        (MAREK? OR NEW CASTLE? OR NEWCASTLE?) (W) DISEAS? OR
        INFECTIOUS BRONCHITIS OR CHICKEN(1W) (ANEMIA OR ANAEMIA) (W) A
        GENT OR REOVIRUS OR REOVIRID? OR REO(W) (VIRUS OR VIRID?))
L22     292 SEA FILE=USPATFULL ABB=ON PLU=ON L1(L) (FOWL(W) (ADENOVIR?
        OR ADENO VIR?) OR AVIAN(W) (RETROVIR? OR RETRO VIR?) OR
        TURKEY(W) (RHINOTRACH? OR RHINO TRACH?) OR SALMONELLA OR
        COLI OR MDV OR NDV OR IBV OR CAA)
L23     1 SEA FILE=USPATFULL ABB=ON PLU=ON L1(L) (AVIAN(2W) (PNEUMOVI
        R? OR METAPNEUMOVIR? OR (METAPNEUMO OR PNEUMO) (W) VIR?))
L24     183 SEA FILE=USPATFULL ABB=ON PLU=ON (L21 OR L22 OR L23) (L) (I
        MMUNIS? OR IMMUNIZ? OR VACCIN?)
L25     108 SEA FILE=USPATFULL ABB=ON PLU=ON L24(L) ADJUVANT
L26     57 SEA FILE=USPATFULL ABB=ON PLU=ON L25(L) (FREEZ?(W) (DRIED
        OR DRY?) OR LYOPHIL?)
L27     35 SEA FILE=USPATFULL ABB=ON PLU=ON L26(L) (HYDROPHIL? OR
        HYDRO PHIL?)
L28     33 SEA FILE=USPATFULL ABB=ON PLU=ON L27(L) (POLYPEPTIDE OR
        PEPTIDE OR POLYPROTEIN OR POLY PEPTIDE)

```

L28 ANSWER 1 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:195794 USPATFULL

TITLE: Compositions and methods for immunotherapy of cancer and infectious diseases

INVENTOR(S): Aylsworth, Charles, Holt, MI, UNITED STATES
 Ho, Siu-Cheong, East Lansing, MI, UNITED STATES
 Juckett, David, East Lansing, MI, UNITED STATES
 Judge, John W., Holt, MI, UNITED STATES
 Rosenberg, Barnett, Holt, MI, UNITED STATES
 Zlatkin, Igor V., Lansing, MI, UNITED STATES
 Zlatkin, Tatiana, Lansing, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005169935	A1	20050804
APPLICATION INFO.:	US 2004-892659	A1	20040715 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-487336P	20030715 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MORGAN & FINNEGAN, L.L.P., 3 WORLD FINANCIAL	

CENTER, NEW YORK, NY, 10281-2101, US
 NUMBER OF CLAIMS: 127
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 38 Drawing Page(s)
 LINE COUNT: 8132

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides compositions and methods for the prevention and treatment of primary and metastatic neoplastic diseases and infectious diseases, for stimulating an immune response in a subject, and for use as an alternative to interleukin-12 (IL-12) treatment. In particular, the present invention provides Apicomplexa-related proteins (ARPs) that have immune stimulatory activity and thus have uses in the treatment and prevention of cancer and infectious diseases and in immune modulation. Compositions comprising an ARP are provided. Methods of use of an ARP for the prevention and/or treatment of cancer and/or infectious diseases, for use as an alternative to interleukin-12 (IL-12) treatment, and for eliciting an immune response in a subject, are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 2 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:177842 USPATFULL
 TITLE: Targeted drug delivery using EphA2 or EphA4 binding moieties
 INVENTOR(S): Kinch, Michael S., Laytonsville, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005153923	A1	20050714
APPLICATION INFO.:	US 2004-4794	A1	20041203 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-527396P	20031204 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US	
NUMBER OF CLAIMS:	47	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	31 Drawing Page(s)	
LINE COUNT:	7929	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods and compositions designed for the treatment, management, or prevention of a hyperproliferative cell disease, particularly cancer. The methods of the invention comprise the administration of an effective amount of a composition that targets cells expressing an Eph family receptor tyrosine kinase, such as EphA2 or EphA4, for the treatment, management, or prevention of hyperproliferative diseases, particularly cancer. In one embodiment, the method of the invention comprises administering to a subject a composition comprising an EphA2 or EphA4 targeting moiety attached to a delivery vehicle, and one or more therapeutic or prophylactic agents that treat or prevent a hyperproliferative disease, where the therapeutic or prophylactic agents are operatively associated with the delivery vehicle. In another embodiment, the method of the invention comprises administering to a

subject a composition comprising a nucleic acid comprising a nucleotide sequence encoding an EphA2 or EphA4 targeting moiety and a therapeutic or prophylactic agent that treats or prevents a hyperproliferative disease. In yet another embodiment, the method of the invention comprises administering to a subject a composition comprising an EphA2 or EphA4 targeting moiety and a nucleic acid comprising a nucleotide sequence encoding an agent that treats or prevents a hyperproliferative disease, where the nucleic acid is operatively associated with the delivery vehicle. Pharmaceutical compositions are also provided by the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 3 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:170846 USPATFULL

TITLE: EphA2, EphA4 and LMW-PTP and methods of treatment of hyperproliferative cell disorders

INVENTOR(S): Kinch, Michael S., Laytonsville, MD, UNITED STATES

PATENT ASSIGNEE(S): MedImmune, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005147593	A1	20050707
APPLICATION INFO.:	US 2004-4795	A1	20041203 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	WO 2003-US16269	20030522
	US 2003-527154P	20031204 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US	
NUMBER OF CLAIMS:	45	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	32 Drawing Page(s)	
LINE COUNT:	8605	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods and compositions designed for treatment, management, or prevention of a hyperproliferative cell disease, particular cancer. The methods of the invention comprise the administration of an effective amount of a composition that targets cells expressing low molecular weight protein tyrosine kinase ("LMW-PTP") in particular using moieties that bind an Eph family receptor tyrosine kinase, such as EphA2 or EphA4, and inhibits or reduces LMW-PTP expression and/or activity. In one embodiment, the method of the invention comprises administering to a subject a composition comprising an EphA2 or EphA4 targeting moiety attached to a delivery vehicle, and one or more agents that inhibit LMW-PTP expression and/or activity operatively associated with the delivery vehicle. In another embodiment, the method of the invention comprises administering to a subject a composition comprising a nucleic acid comprising a nucleotide sequence encoding an EphA2 or EphA4 targeting moiety and an agent that inhibits or reduces LMW-PTP expression and/or activity. In yet another embodiment, the method of the invention comprises administering to a subject a composition comprising an EphA2 or EphA4 targeting moiety and a nucleic acid comprising a nucleotide sequence encoding an agent that inhibits or reduces LMW-PTP expression and/or activity, where the nucleic acid

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is operatively associated with the delivery vehicle. Pharmaceutical compositions are also provided by the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 4 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:86989 USPATFULL

TITLE: Methods and compositions for treating rheumatoid arthritis

INVENTOR(S): Yednock, Theodore A., Forest Knolls, CA, UNITED STATES
Freedman, Stephen B., San Francisco, CA, UNITED STATES
Lieberburg, Ivan, Berkeley, CA, UNITED STATES
Pleiss, Michael A., Sunnyvale, CA, UNITED STATES
Konradi, Andrei W., San Francisco, CA, UNITED STATES
Shopp, George, South San Francisco, CA, UNITED STATES
Messersmith, Elizabeth, El Cerrito, CA, UNITED STATES

PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., South San Francisco, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005074451	A1	20050407
APPLICATION INFO.:	US 2004-875469	A1	20040625 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-482211P	20030625 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BURNS DOANE SWECKER & MATHIS L L P, POST OFFICE BOX 1404, ALEXANDRIA, VA, 22313-1404	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	21901	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This application relates to methods and compositions for treating rheumatoid arthritis by administering a combination therapy comprising methotrexate and an antibody to alpha-4 integrin or an immunologically active antigen binding fragment in therapeutically effective amounts. The application also relates generally to methods and compositions for treating rheumatoid arthritis by administering a combination therapy comprising methotrexate and small molecule alpha-4 integrin antagonist that inhibits the alpha-4 integrin ($\alpha 4$ integrin) interaction with VCAM-1. The invention further relates to methods of preparing the compounds and methods of using the compounds and compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 5 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:75891 USPATFULL

TITLE: Methods and compositions for treating rheumatoid arthritis

Searcher : Shears 571-272-2528

10/723123

INVENTOR(S): Yednock, Theodore A., Forest Knolls, CA, UNITED STATES
Freedman, Stephen B., San Francisco, CA, UNITED STATES
Lieberburg, Ivan, Berkeley, CA, UNITED STATES
Pleiss, Michael A., Sunnyvale, CA, UNITED STATES
Konradi, Andrei W., San Francisco, CA, UNITED STATES
Shopp, George, South San Francisco, CA, UNITED STATES
Messersmith, Elizabeth, El Cerrito, CA, UNITED STATES
PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., South San Francisco, CA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005065192	A1	20050324
APPLICATION INFO.:	US 2004-875282	A1	20040625 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-482211P	20030625 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	BURNS DOANE SWECKER & MATHIS L L P, POST OFFICE BOX 1404, ALEXANDRIA, VA, 22313-1404	
NUMBER OF CLAIMS:	123	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	24079	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This application relates to methods and compositions for treating rheumatoid arthritis by administering a combination therapy comprising methotrexate and an antibody to alpha-4 integrin or an immunologically active antigen binding fragment in therapeutically effective amounts. The application also relates generally to methods and compositions for treating rheumatoid arthritis by administering a combination therapy comprising methotrexate and small molecule alpha-4 integrin antagonist that inhibits the alpha-4 integrin ($\alpha 4$ integrin) interaction with VCAM-1. The invention further relates to methods of preparing the compounds and methods of using the compounds and compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 6 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:68520 USPATFULL.

TITLE: Compositions and methods for immunotherapy of human immunodeficiency virus (HIV)

INVENTOR(S): Rosenberg, Barnett, Holt, MI, UNITED STATES

PATENT ASSIGNEE(S): Barros Research Institute, Holt, MI (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005058658	A1	20050317
APPLICATION INFO.:	US 2004-893581	A1	20040715 (10)

Searcher : Shears 571-272-2528

10/723123

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-487865P	20030715 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257	
NUMBER OF CLAIMS:	67	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	33 Drawing Page(s)	
LINE COUNT:	6623	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides compositions and methods for the prevention and treatment of an infectious disease caused by infection with HIV and for stimulating an immune response in a subject. In particular, the present invention provides Apicomplexa-related proteins (ARPs) that have immune stimulatory activity and thus have uses in the treatment and prevention of an infectious disease caused by infection with HIV and in immune modulation. Compositions comprising an ARP are provided. Methods of use of an ARP for the prevention and/or treatment of an infectious disease caused with infection with HIV, and for eliciting an immune response in a subject, are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 7 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:43294 USPATFULL
TITLE: Coccidiosis vaccines
INVENTOR(S): Schaap, Theodorus Cornelis, 's-Hertogenbosch, NETHERLANDS
Kuiper, Catharina Maria, 's-Hertogenbosch, NETHERLANDS
Vermeulen, Arnoldus Nicolaas, Cuyk, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005037020	A1	20050217
APPLICATION INFO.:	US 2003-723123	A1	20031126 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-749233, filed on 27 Dec 2000, GRANTED, Pat. No. US 6680061 Division of Ser. No. US 1999-411578, filed on 4 Oct 1999, GRANTED, Pat. No. US 6203801		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-203384	19981007
	EP 1998-203457	19981016
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	AKZO NOBEL PHARMA PATENT DEPARTMENT, PO BOX 318, MILLSBORO, DE, 19966	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	CLM-001-6	
LINE COUNT:	1256	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to hydrophilic Eimeria polypeptides, DNA-fragments encoding those peptides, recombinant DNA molecules comprising such DNA-fragments, live recombinant carriers comprising

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such DNA-fragments or recombinant DNA molecules and host cells comprising such DNA-fragments, recombinant DNA molecules or live recombinant carriers. Furthermore, the invention relates to antibodies against the polypeptides and to coccidiosis vaccines based upon said polypeptides. The invention also relates to methods for the preparation of such antibodies and vaccines, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 8 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2005:38362 USPATFULL

TITLE: Nucleic acids encoding recombinant 56 and 82 kda antigens from gametocytes of eimeria maxima and their uses

INVENTOR(S): Belli, Sabina I., N.S.W., AUSTRALIA
Smith, Nicholas C., Roseville N.S.W., AUSTRALIA
Wallach, Michael, St. Ives N.S.W., AUSTRALIA

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005033042	A1	20050210
APPLICATION INFO.:	US 2004-483159	A1	20040913 (10)
	WO 2002-US21233		20020703

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-303699P	20010706 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	John P White, Cooper & Dunham, 1185 Avenue of the Americas, New York, NY, 10036	
NUMBER OF CLAIMS:	39	
EXEMPLARY CLAIM:	CLM-01-98	
NUMBER OF DRAWINGS:	36 Drawing Page(s)	
LINE COUNT:	2643	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides the recombinant cloning and sequencing of two of the major Eimeria maxima gametocyte antigens having molecular weights of 56 and 82 kDa and the expression of these recombinant antigens in an E. coli expression system using the plasmid pTrcHis. The subject invention also provides a vaccine against coccidiosis comprising the recombinant 56 kDa or 82 kDa antigen. The subject invention also provides two 30 kDa proteins and three 14 kDa proteins from Eimeria maxima gametocytes having at the N-terminal end the amino acid sequence described herein. The subject invention also provides a vaccine against coccidiosis comprising the recombinant 56 kDa or 82 kDa antigen and any of the aforementioned proteins. Additionally, the subject invention also provides a method of immunizing a subject against infection by Eimeria tenella, Eimeria maxima, Eimeria acervulina, Eimeria necatrix, Eimeria praecox, Eimeria mitis or Eimeria brunetti, or a microorganism expressing an immunologically cross-reactive antigen, comprising the step of administering to the subject any of the aforementioned vaccines.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Searcher : Shears 571-272-2528

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L28 ANSWER 9 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2004:171473 USPATFULL
TITLE: Parasite antigens
INVENTOR(S): Ellis, John Timothy, Hornsby New South Wales, AUSTRALIA
Atkinson, Robert, Irvinebank, AUSTRALIA
Ryce, Cheryl, New South Wales, AUSTRALIA
Quinn, Helen Elizabeth, Chapel Hill, AUSTRALIA
Miller, Catherine Margaret, Roseville, AUSTRALIA
Morrison, David Andrew, Uppsala, SWEDEN
PATENT ASSIGNEE(S): University of Technology, Sydney (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004131633	A1	20040708
APPLICATION INFO.:	US 2003-608436	A1	20030630 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-959246, filed on 10 Jan 2002, PENDING A 371 of International Ser. No. WO 2000-AU354, filed on 20 Apr 2000, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1999-9928	19990421
	WO 2000-AU354	20000420
	WO 1999-AU405	19990526
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	NIXON & VANDERHYE, PC, 1100 N GLEBE ROAD, 8TH FLOOR, ARLINGTON, VA, 22201-4714	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Page(s)	
LINE COUNT:	3150	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to polypeptides from N. caninum which are capable of raising an immune response when administered to an animal. Such polypeptides can be used in vaccination strategies for protecting animals, such as cows and dogs, from neosporosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 10 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2004:85157 USPATFULL
TITLE: B. burgdorferi polypeptides
INVENTOR(S): Flavell, Richard A., Killingworth, CT, United States
Fikrig, Erol, Guilford, CT, United States
Lam, Tuan T., San Jose, CA, United States
Kantor, Fred S., Orange, CT, United States
Barthold, Stephen W., Madison, CT, United States
PATENT ASSIGNEE(S): Yale University, New Haven, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6716591	B1	20040406
APPLICATION INFO.:	US 1998-152588		19980914 (9)

Searcher : Shears 571-272-2528

RELATED APPLN. INFO.: Division of Ser. No. US 1997-909119, filed on 11 Aug 1997, now patented, Pat. No. US 5807685
 Division of Ser. No. US 1993-118469, filed on 8 Sep 1993, now patented, Pat. No. US 5656451
 Continuation-in-part of Ser. No. US 1993-99757, filed on 30 Jul 1993, now abandoned

DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Helms, Larry R.
 LEGAL REPRESENTATIVE: Fish & Neave, Haley, Jr., James F., Holmes, Andrew K.

NUMBER OF CLAIMS: 7
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 17 Drawing Figure(s); 16 Drawing Page(s)
 LINE COUNT: 2544

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for the prevention, treatment and diagnosis of Lyme disease. Novel B. burgdorferi polypeptides, serotypic variants thereof, fragments thereof and derivatives thereof. Fusion proteins and multimeric proteins comprising same. Multicomponent vaccines comprising novel B. burgdorferi polypeptides in addition to other immunogenic B. burgdorferi polypeptides. DNA sequences, recombinant DNA molecules and transformed host cells useful in the compositions and methods. Antibodies directed against the novel B. burgdorferi polypeptides, and diagnostic kits comprising the polypeptides or antibodies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 11 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2004:25128 USPATFULL

TITLE: Novel nucleic acids and polypeptides and methods of use thereof

INVENTOR(S): Shimkets, Richard A., Guilford, CT, UNITED STATES
 Patturajan, Meera, Branford, CT, UNITED STATES
 Vernet, Corine A.M., Branford, CT, UNITED STATES
 Casman, Stacie J., North Haven, CT, UNITED STATES
 Malyankar, Uriel M., Branford, CT, UNITED STATES
 Shenoy, Suresh G., Branford, CT, UNITED STATES
 Spytek, Kimberly A., New Haven, CT, UNITED STATES
 Gangolli, Esha A., Madison, CT, UNITED STATES
 Miller, Charles E., Guilford, CT, UNITED STATES
 Boldog, Ferenc L., North Haven, CT, UNITED STATES
 Li, Li, Branford, CT, UNITED STATES
 Taupier, Raymond J., JR., East Haven, CT, UNITED STATES
 Kekuda, Ramesh, Norwalk, CT, UNITED STATES
 Smithson, Glennda, Guilford, CT, UNITED STATES
 Zerhusen, Bryan D., Branford, CT, UNITED STATES
 Liu, Xiaohong, Lexington, MA, UNITED STATES
 Colman, Steven D., Guilford, CT, UNITED STATES
 Tchernev, Velizar T., Branford, CT, UNITED STATES
 Si, Jingsheng, Cheshire, CT, UNITED STATES
 Edinger, Shlomit R., New Haven, CT, UNITED STATES
 Stone, David J., Guilford, CT, UNITED STATES
 Sciore, Paul, North Haven, CT, UNITED STATES
 Millet, Isabelle, Milford, CT, UNITED STATES
 Rothenberg, Mark E., Clinton, CT, UNITED STATES

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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004018970	A1	20040129
APPLICATION INFO.:	US 2002-107782	A1	20020327 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-28248, filed on 19 Dec 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-256619P	20001219 (60)
	US 2001-262959P	20010119 (60)
	US 2001-272408P	20010228 (60)
	US 2001-285189P	20010420 (60)
	US 2001-308039P	20010726 (60)
	US 2001-311266P	20010809 (60)
	US 2001-279344P	20010328 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MINTZ, LEVIN, COHN, FERRIS, GLOVSKY, AND POPEO, P.C., ONE FINANCIAL CENTER, BOSTON, MA, 02111	
NUMBER OF CLAIMS:	59	
EXEMPLARY CLAIM:	1	
LINE COUNT:	13311	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Disclosed are novel polypeptides and nucleic acids encoding same. Also disclosed are vectors, host cells, antibodies and recombinant methods for producing the polypeptides and polynucleotides, as well as methods for using same.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 12 OF 33 USPATFULL on STN
ACCESSION NUMBER: 2004:14941 USPATFULL
TITLE: Coccidiosis vaccines
INVENTOR(S): Schaap, Theodorus Cornelis, van de Does de
Willeboissingel 53, 5211 CE, 's-Hertogenbosch,
NETHERLANDS
Kuiper, Catharina Maria, Samuel Morsestrast 36,
5223 BB, 's-Hertogenbosch, NETHERLANDS
Vermeulen, Arnoldus Nicolaas, Korhoenderveld 34,
5431 HH - Cuyk, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6680061	B1	20040120
APPLICATION INFO.:	US 2000-749233		20001227 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-411578, filed on 4 Oct 1999, now patented, Pat. No. US 6203801		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-203384	19981007
	EP 1998-203457	19981016
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Smith, L. F.	
ASSISTANT EXAMINER:	Baskar, Padmavathi	
LEGAL REPRESENTATIVE:	Milstead, Mark W.	
NUMBER OF CLAIMS:	2	

Searcher : Shears 571-272-2528

EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
 LINE COUNT: 1104
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to hydrophilic Eimeria polypeptides, DNA-fragments encoding those peptides, recombinant DNA molecules comprising such DNA-fragments, live recombinant carriers comprising such DNA-fragments or recombinant DNA molecules and host cells comprising such DNA-fragments, recombinant DNA molecules or live recombinant carriers. Furthermore, the invention relates to antibodies against the polypeptides and to coccidiosis vaccines based upon said polypeptides. The invention also relates to methods for the preparation of such antibodies and vaccines, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 13 OF 33 USPATFULL on STN
 ACCESSION NUMBER: 2004:2426 USPATFULL
 TITLE: METH1 and METH2 polynucleotides and polypeptides
 INVENTOR(S): Iruela-Arispe, Luisa, Los Angeles, CA, UNITED STATES
 Hastings, Gregg A., Westlake Village, CA, UNITED STATES
 Ruben, Steven M., Olney, MD, UNITED STATES
 Jonak, Zdenka L., Devon, PA, UNITED STATES
 Trulli, Stephen H., Havertown, PA, UNITED STATES
 Fornwald, James A., Norristown, PA, UNITED STATES
 Terrett, Jonathan A., Oxfordshire, UNITED KINGDOM
 PATENT ASSIGNEE(S): Human Genome Sciences, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004002449	A1	20040101
APPLICATION INFO.:	US 2001-989687	A1	20011121 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 2000-US14462, filed on 25 May 2000, PENDING Continuation-in-part of Ser. No. US 1999-318208, filed on 25 May 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-373658, filed on 13 Aug 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-171503P	19991222 (60)
	US 2000-183792P	20000222 (60)
	US 1999-144882P	19990720 (60)
	US 1999-147823P	19990810 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	28864	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention relates to novel anti-angiogenic proteins,	

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related to thrombospondin. More specifically, isolated nucleic acid molecules are provided encoding human METH1 and METH2. METH1 and METH2 polypeptides are also provided, as are vectors, host cells and recombinant methods for producing the same. Also provided are diagnostic methods for the prognosis of cancer and therapeutic methods for treating individuals in need of an increased amount of METH1 or METH2. Also provided are methods for inhibiting angiogenesis using METH1 or METH2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 14 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2003:335006 USPATFULL

TITLE: Novel nucleic acids and polypeptides and methods of use thereof

INVENTOR(S): Shimkets, Richard A., Guilford, CT, UNITED STATES
Patturajan, Meera, Branford, CT, UNITED STATES
Vernet, Corine A.M., Branford, CT, UNITED STATES
Casman, Stacie J., North Haven, CT, UNITED STATES
Malyankar, Uriel M., Branford, CT, UNITED STATES
Shenoy, Suresh G., Branford, CT, UNITED STATES
Spytek, Kimberly A., New Haven, CT, UNITED STATES
Gangolli, Esha A., Madison, CT, UNITED STATES
Miller, Charles E., Guilford, CT, UNITED STATES
Boldog, Ferenc L., North Haven, CT, UNITED STATES
Li, Li, Branford, CT, UNITED STATES
Taupier, Raymond J., JR., East Haven, CT, UNITED STATES
Kekuda, Ramesh, Norwalk, CT, UNITED STATES
Smithson, Glennda, Guilford, CT, UNITED STATES
Zerhusen, Bryan D., Branford, CT, UNITED STATES
Liu, Xiaohong, Lexington, MA, UNITED STATES
Colman, Steven D., Guilford, CT, UNITED STATES
Tchernev, Velizar T., Branford, CT, UNITED STATES
Si, Jingsheng, Cheshire, CT, UNITED STATES
Edinger, Shlomit R., New Haven, CT, UNITED STATES
Stone, David J., Guilford, CT, UNITED STATES
Sciore, Paul, North Haven, CT, UNITED STATES
Millet, Isabelle, Milford, CT, UNITED STATES
Rothenberg, Mark E., Clinton, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003235882	A1	20031225
APPLICATION INFO.:	US 2001-28248	A1	20011219 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-256619P	20001219 (60)
	US 2001-262959P	20010119 (60)
	US 2001-272408P	20010228 (60)
	US 2001-285189P	20010420 (60)
	US 2001-308039P	20010726 (60)
	US 2001-311266P	20010809 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Ivor R. Elrifi, MINTZ, LEVIN, COHN, FERRIS,,
GLOVSKY and POPEO, P.C., One Financial Center,
Boston, MA, 02111

Searcher : Shears 571-272-2528

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NUMBER OF CLAIMS: 59
EXEMPLARY CLAIM: 1
LINE COUNT: 13048

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are novel polypeptides and nucleic acids encoding same.
Also disclosed are vectors, host cells, antibodies and recombinant
methods for producing the polypeptides and polynucleotides, as well
as methods for using same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 15 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2003:213759 USPATFULL

TITLE: Antimicrobial peptides and methods for identifying
and using such peptides

INVENTOR(S): Leite, Adilson, Campinas, BRAZIL
Kawazoe, Urara, Sao Paulo, BRAZIL
Arruda, Paulo, Sao Paulo, BRAZIL
Junior, Arnaldo da Silva, Sao Paulo, BRAZIL

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003148397	A1	20030807
APPLICATION INFO.:	US 2001-870498	A1	20010601 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198		
NUMBER OF CLAIMS:	29		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Page(s)		
LINE COUNT:	1880		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a method for identifying peptides having
antimicrobial activity and to the antimicrobial peptides identified
thereby and methods for their use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 16 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2003:134811 USPATFULL

TITLE: Meth1 and Meth2 polynucleotides and polypeptides
INVENTOR(S): Iruela-Arispe, Luisa, Los Angeles, CA, UNITED
STATES

Hastings, Gregg A., Westlake Village, CA, UNITED
STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Jorak, Zdenka L., Devon, PA, UNITED STATES
Trulli, Stephen H., Havertown, PA, UNITED STATES
Fronwald, James A., Norristown, PA, UNITED STATES
Terret, Jonathan A., Oxon, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003092900	A1	20030515
APPLICATION INFO.:	US 1999-373658	A1	19990813 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-318208, filed on 25 May 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-235810,		

Searcher : Shears 571-272-2528

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Sept 2

filed on 22 Jan 1999, ABANDONED
Continuation-in-part of Ser. No. US 1997-845496,
filed on 24 Apr 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-98539P	19980828 (60)
	US 1998-72298P	19980123 (60)
	US 1999-144882P	19990720 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE KESSLER GOLDSTEIN & FOX PLLC, SUITE 600, 1100 NEW YORK AVENUE NW, WASHINGTON, DC, 20005-3934	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	12 Drawing Page(s)	
LINE COUNT:	25425	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB The present invention relates to novel anti-angiogenic proteins, related to thrombospondin. More specifically, isolated nucleic acid molecules are provided encoding human METH1 and METH2. METH1 and METH2 polypeptides are also provided, as are vectors, host cells and recombinant methods for producing the same. Also provided are diagnostic methods for the prognosis of cancer and therapeutic methods for treating individuals in need of an increased amount of METH1 or METH2. Also provided are methods for inhibiting angiogenesis using METH1 or METH2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 17 OF 33 USPATFULL on STN
ACCESSION NUMBER: 2003:93678 USPATFULL
TITLE: Biologically active 1,3-bis-aromatic-prop-2-en-1-ones, 1,3-bis-aromatic-propan-1-ones, and 1,3-bis-aromatic-prop-2-yn-1-ones
INVENTOR(S): Kharazmi, Arsalan, Hellerup, DENMARK
Christensen, Soren Brogger, Nivaa, DENMARK
Nielsen, Simon Feldbaek, Herlev, DENMARK
PATENT ASSIGNEE(S): Statens Serum Institute, Copenhagen K, DENMARK
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003065039	A1	20030403
APPLICATION INFO.:	US 2002-62208	A1	20020131 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-462125, filed on 27 Dec 1999, PENDING A 371 of International Ser. No. WO 1998-DK283, filed on 26 Jun 1998, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1997-762	19970626
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DIKE, BRONSTEIN, ROBERTS AND CUSHMAN,, INTELLECTUAL PROPERTY PRACTICE GROUP, EDWARDS & ANGELL, LLP., P.O. BOX 9169, BOSTON, MA, 02209	
NUMBER OF CLAIMS:	335	
EXEMPLARY CLAIM:	1	

Searcher : Shears 571-272-2528

NUMBER OF DRAWINGS: 37 Drawing Page(s)

LINE COUNT: 7715

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of 1,3-bis-aromatic-prop-2-en-1-ones (chalcones), 1,3-bis-aromatic-propan-1-ones (dihydrochalcones), and 1,3-bis-aromatic-prop-2-yn-1-ones for the preparation of pharmaceutical compositions for the treatment or prophylaxis of a number of serious diseases including i) conditions relating to harmful effects of inflammatory cytokines, ii) conditions involving infection by Helicobacter species, iii) conditions involving infection by viruses, iv) neoplastic disorders, and v) conditions caused by microorganisms or parasites. The invention also relates to novel chalcones and dihydrochalcones (especially alkoxy substituted variants) having advantageous substitution patterns with respect to their effect as drug substances, and to methods of preparing them, as well as to pharmaceutical compositions comprising the novel chalcones. Moreover, the present invention relates to a method for the isolation of Leishmania fumarate reductase, QSAR methodologies for selecting potent compounds for the above-mentioned purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 18 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2003:23617 USPATFULL

TITLE: Novel polynucleotides and polypeptides encoded thereby

INVENTOR(S): Fernandes,, Elma R., Branford, CT, UNITED STATES
Vernet, Corine A.M., North Branford, CT, UNITED STATES
Mishnu, Vishnu S., Gainesville, FL, UNITED STATES
Leach, Martin D., Madison, CT, UNITED STATES
Shimkets, Richard A., West Haven, CT, UNITED STATES
Zerhusen, Bryan D., Branford, CT, UNITED STATES
Kekuda, Ramesha, Branford, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003017457	A1	20030123
APPLICATION INFO.:	US 2001-826734	A1	20010405 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-195576P	20000406 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Ivor R. Elrifi, MINTZ, LEVIN, COHN, FERRIS,, GLOVSKY AND POPEO, P.C., One Financial Center, Boston, MA, 02111	

NUMBER OF CLAIMS: 32

EXEMPLARY CLAIM: 1

LINE COUNT: 5910

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides ORFX, a novel isolated polypeptide, as well as a polynucleotide encoding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX polypeptide, polynucleotide or antibody. The invention additionally provides methods in which the ORFX polypeptide, polynucleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to

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others uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 19 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2002:99407 USPATFULL
TITLE: Nucleic acids, proteins and antibodies
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002052308	A1	20020502
APPLICATION INFO.:	US 2001-925301	A1	20010810 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2000-US5882, filed on 8 Mar 2000, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-124270P	19990312 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
LINE COUNT:	30577	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to newly identified tissue specific cancer associated polynucleotides and the polypeptides encoded by these polynucleotides herein collectively known as "cancer antigens," and to the complete gene sequences associated therewith and to the expression products thereof, as well as the use of such tissue specific cancer antigens for detection, prevention and treatment of tissue specific disorders, particularly the presense of cancer. This invention relates to the cancer antigens as well as vectors, host cells, antibodies directed to cancer antigens and recombinant and synthetic methods for producing the same. Also provided are diagnostic methods for diagnosing and treating, preventing and/or prognosing tissue specific disorders, including cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of cancer antigens of the invention. The present invention further relates to methods and/or compositions for inhibiting the production and/or function of the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 20 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2002:12032 USPATFULL
TITLE: VACCINES AGAINST EIMERIA MEDIATED DISORDER
INVENTOR(S): VERMEULEN, ARNO N, CUIJK, NETHERLANDS
CLERCX-BREED, DOMINIQUE G J, NIJMEGEN, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002006408	A1	20020117
APPLICATION INFO.:	US 1998-56806	A1	19980408 (9)

Searcher : Shears 571-272-2528

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	NUMBER	DATE
PRIORITY INFORMATION:	EP 1997-302447	19970904
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WILLIAM M BLACKSTONE, AKZO NOBEL, 1300 PICCARD DRIVE NO 206, ROCKVILLE, MD, 208504373	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	1071	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Compositions comprising Eimeria proteins or variants/fragments of such proteins can be used to produce a coccidiosis vaccine.	

The proteins are present in the hydrophilic phase of a Triton X-114 extract of Eimeria sporozoites and have molecular masses of 26-30 kDa±5 kDa when determined by SDS PAGE under reducing conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 21 OF 33 USPATFULL on STN
ACCESSION NUMBER: 2001:218013 USPATFULL
TITLE: Tick antigens and compositions and methods comprising them
INVENTOR(S): Kantor, Fred S., Orange, CT, United States
Fikrig, Erol, Guilford, CT, United States
Das, Subrata, New Haven, CT, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001046499	A1	20011129
APPLICATION INFO.:	US 2000-728914	A1	20001201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-169048P	19991203 (60)
	US 2000-240716P	20001016 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	FISH & NEAVE, 1251 AVENUE OF THE AMERICAS, 50TH FLOOR, NEW YORK, NY, 10020-1105	
NUMBER OF CLAIMS:	54	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	49 Drawing Page(s)	
LINE COUNT:	3235	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for conferring tick immunity and preventing or reducing the transmission of tick-borne pathogens. Tick polypeptides, fragments and derivatives; fusion and multimeric proteins comprising the polypeptides, fragments or derivatives; nucleic acid molecules encoding them; antibodies directed against the polypeptides, fusion proteins or multimeric proteins and compositions comprising the antibodies. Vaccines comprising the polypeptides, fragments or derivatives, alone or in addition to other protective polypeptides. Methods comprising the polypeptides, antibodies and vaccines.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 22 OF 33 USPATFULL on STN
 ACCESSION NUMBER: 2001:40017 USPATFULL
 TITLE: Coccidiosis polypeptide and vaccines
 INVENTOR(S): Schaap, Theodorus Cornelis, 's-Hertogenbosch,
 Netherlands
 Kuiper, Catharina Maria, 's-Hertogenbosch,
 Netherlands
 Vermeulen, Arnoldus Nicolaas, Cuyk, Netherlands
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6203801	B1	20010320
APPLICATION INFO.:	US 1999-411578		19991004 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-203384	19981007
	EP 1998-203457	19981016
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Minnifield, Nita	
ASSISTANT EXAMINER:	Baskar, Padma	
LEGAL REPRESENTATIVE:	Blackstone, William M.	
NUMBER OF CLAIMS:	1	
EXEMPLARY CLAIM:	1	
LINE COUNT:	903	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to hydrophilic Eimeria polypeptides, DNA-fragments encoding those peptides, recombinant DNA molecules comprising such DNA-fragments, live recombinant carriers comprising such DNA-fragments or recombinant DNA molecules and host cells comprising such DNA-fragments, recombinant DNA molecules or live recombinant carriers. Furthermore, the invention relates to antibodies against the polypeptides and to coccidiosis vaccines based upon said polypeptides. The invention also relates to methods for the preparation of such antibodies and vaccines, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 23 OF 33 USPATFULL on STN
 ACCESSION NUMBER: 2000:102274 USPATFULL
 TITLE: Coccidiosis poultry vaccine
 INVENTOR(S): Kok, Jacobus Johannes, Nijmegen, Netherlands
 van den Boogaart, Paul, SC Oss, Netherlands
 Vermeulen, Arnoldus Nicolaas, Cuyk, Netherlands
 PATENT ASSIGNEE(S): Akzo Nobel, N.V., Netherlands (non-U.S.
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6100241		20000808
APPLICATION INFO.:	US 1996-676882		19960703 (8)

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	NUMBER	DATE
PRIORITY INFORMATION:	EP 1995-201801	19950703
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Crouch, Deborah	
ASSISTANT EXAMINER:	Martin, Jill D.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	1230	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to Eimeria proteins with immunogenic properties as well as to DNA sequences encoding these proteins. These proteins can be administered to poultry thereby protecting the birds against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 24 OF 33 USPATFULL on STN

ACCESSION NUMBER: 2000:9723 USPATFULL
TITLE: Unique nucleotide and amino acid sequence and uses thereof
INVENTOR(S): Summers, Max D., Bryan, TX, United States
Braunagel, Sharon C., Bryan, TX, United States
Hong, Tao, Bryan, TX, United States
PATENT ASSIGNEE(S): The Texas A & M University System, College Station, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6017734		20000125
APPLICATION INFO.:	US 1997-792832		19970130 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-678435, filed on 3 Jul 1996, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-955P	19950707 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Elliott, George C.	
ASSISTANT EXAMINER:	Schwartzman, Robert	
LEGAL REPRESENTATIVE:	Arnold, White & Durkee	
NUMBER OF CLAIMS:	56	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	47 Drawing Figure(s); 24 Drawing Page(s)	
LINE COUNT:	7846	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided are hydrophobic targeting sequences, which may serve to target heterologous proteins to a variety of cellular membranes. In particular, the structural components of the nuclear envelope, or those components which become nucleus-associated, may be targeted with the sequences provided. Also provided are methods of targeting heterologous proteins to particular membranes, and the use of these targeted proteins in therapeutic, diagnostic and insecticidal

applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 25 OF 33 USPATFULL on STN
 ACCESSION NUMBER: 1999:81539 USPATFULL
 TITLE: Viral vector vaccines comprising nucleic acids
 encoding eimeria proteins for poultry vaccination
 against coccidiosis
 INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk, Netherlands
 Boogaart, Paul van den, Oss, Netherlands
 Kok, Jacobus Johannus, Nijmegen, Netherlands
 PATENT ASSIGNEE(S): Akzo Nobel, N.V., Arnhem, Netherlands (non-U.S.
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5925347		19990720
APPLICATION INFO.:	US 1995-468857		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994, now abandoned which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Crouch, Deborah	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	2115	
AB	The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.	

L28 ANSWER 26 OF 33 USPATFULL on STN
 ACCESSION NUMBER: 1998:111773 USPATFULL
 TITLE: OspE, OspF, and S1 polypeptides in Borrelia
 burgdorferi
 INVENTOR(S): Flavell, Richard A., Killingworth, CT, United
 States
 Fikrig, Erol, Guilford, CT, United States
 Lam, Tuan T., San Jose, CA, United States
 Kantor, Fred S., Orange, CT, United States
 Barthold, Stephen W., Madison, CT, United States
 PATENT ASSIGNEE(S): Yale University, New Haven, CT, United States (U.S.
 corporation)

NUMBER	KIND	DATE
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10/723123

PATENT INFORMATION: US 5807685 19980915
APPLICATION INFO.: US 1997-909119 19970811 (8)
RELATED APPLN. INFO.: Division of Ser. No. US 1993-118469, filed on 8 Sep
1993, now patented, Pat. No. US 5656451 And a
continuation-in-part of Ser. No. US 1993-99757,
filed on 30 Jul 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Carlson, Karen
LEGAL REPRESENTATIVE: Fish & Neave, Haley, Jr., James F., Gunnison, Jane
T.
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 16 Drawing Page(s)
LINE COUNT: 2343

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for the prevention, treatment and diagnosis
of Lyme disease. Novel B. burgdorferi polypeptides, serotypic
variants thereof, fragments thereof and derivatives thereof. Fusion
proteins and multimeric proteins comprising same. Multicomponent
vaccines comprising novel B. burgdorferi polypeptides in addition to
other immunogenic B. burgdorferi polypeptides. DNA sequences,
recombinant DNA molecules and transformed host cells useful in the
compositions and methods. Antibodies directed against the novel B.
burgdorferi polypeptides, and diagnostic kits comprising the
polypeptides or antibodies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 27 OF 33 USPATFULL on STN
ACCESSION NUMBER: 1998:95420 USPATFULL
TITLE: DNA encoding an Eimeria 200 kd antigen
INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk, Netherlands
Boogaart, Paul van den, Oss, Netherlands
Kok, Jacobus Johannus, Nijmegen, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5792644		19980811
APPLICATION INFO.:	US 1995-468852		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1,9	
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	1978	

Searcher : Shears 571-272-2528

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 28 OF 33 USPATFULL on STN

ACCESSION NUMBER: 1998:91861 USPATFULL
 TITLE: DNA encoding an Eimekia 50 KD antigen
 INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk, Netherlands
 van den Boogaart, Paul, Oss, Netherlands
 Kok, Jacobus Johannus, Nijmegen, Netherlands
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5789233		19980804
APPLICATION INFO.:	US 1994-310357		19940921 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1,13	
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	1973	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 29 OF 33 USPATFULL on STN

ACCESSION NUMBER: 1998:82587 USPATFULL
 TITLE: Coccidiosis poultry vaccine DNA encoding an elmeria 20K antigen
 INVENTOR(S): Vermeulen, Arnoldus Nicolaas, HH Cuijk, Netherlands
 van den Boogaart, Paul, SC Oss, Netherlands
 Kok, Jacobus Johannus, DH Nijmegen, Netherlands
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5780289		19980714
APPLICATION INFO.:	US 1995-468855		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1,9	
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	1964	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 30 OF 33 USPATFULL on STN
ACCESSION NUMBER: 97:86474 USPATFULL
TITLE: DNA encoding an Eimeria 100kD antigen
INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk, Netherlands
van den Boogaart, Paul, Oss, Netherlands
Kok, Jacobus Johannus, Nijmegen, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5670362		19970923
APPLICATION INFO.:	US 1995-468853		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1,9	

Searcher : Shears 571-272-2528

NUMBER OF DRAWINGS: 12 Drawing Figure(s); 10 Drawing Page(s)
 LINE COUNT: 1964

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel *Eimeria* proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 31 OF 33 USPATFULL on STN

ACCESSION NUMBER: 97:70893 USPATFULL

TITLE: OspE, OspF, and Sl polypeptides in *borrelia burgdorferi*

INVENTOR(S): Flavell, Richard A., Killingworth, CT, United States

Fikrig, Erol, Guilford, CT, United States

Lam, Tuan T., San Jose, CA, United States

Kantor, Fred S., Orange, CT, United States

Barthold, Stephen W., Madison, CT, United States

PATENT ASSIGNEE(S): Yale University, New Haven, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5656451		19970812
APPLICATION INFO.:	US 1993-118469		19930908 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-99757, filed on 30 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Carlson, K. Cochrane		
LEGAL REPRESENTATIVE:	Fish & Neave, Haley, Jr. Esq., James F., Gunnison, Esq., Jane T.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT:	2447		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for the prevention, treatment and diagnosis of Lyme disease. Novel *B. burgdorferi* polypeptides, serotypic variants thereof, fragments thereof and derivatives thereof. Fusion proteins and multimeric proteins comprising same. Multicomponent vaccines comprising novel *B. burgdorferi* polypeptides in addition to other immunogenic *B. burgdorferi* polypeptides. DNA sequences, recombinant DNA molecules and transformed host cells useful in the compositions and methods. Antibodies directed against the novel *B. burgdorferi* polypeptides, and diagnostic kits comprising the polypeptides or antibodies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 32 OF 33 USPATFULL on STN

ACCESSION NUMBER: 93:3342 USPATFULL

TITLE: Adjuvant complexes and vaccine made therefrom

INVENTOR(S): MacKenzie, Neill M., St. Albans, Great Britain

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PATENT ASSIGNEE(S): O'Sullivan, Angela M., Berkhamsted, Great Britain
Coopers Animal Health Limited, Uxbridge, United
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5178860		19930112
APPLICATION INFO.:	US 1990-611543		19901207 (7)
DISCLAIMER DATE:	20080101		
RELATED APPLN. INFO.:	Division of Ser. No. US 1989-426050, filed on 24 Oct 1989, now patented, Pat. No. US 4981684		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1989-19819	19890901
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Wax, Robert A.	
ASSISTANT EXAMINER:	Baker, R. Keith	
LEGAL REPRESENTATIVE:	Kokjer, Kircher, Bowman & Johnson	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
LINE COUNT:	494	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB "Iscom" adjuvant matrices, comprising a sterol, a glycoside, a solubilized water-insoluble antigen and, optionally, a phospholipid, may be formed without removing the solubilizing agent used for the antigen.

The glycoside is preferably Quil A and the sterol is preferably cholesterol.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 33 OF 33 USPATFULL on STN
ACCESSION NUMBER: 91:981 USPATFULL
TITLE: Formation of adjuvant complexes
INVENTOR(S): MacKenzie, Neill M., St. Albans, Great Britain
O'Sullivan, Angela M., Berkhamsted, Great Britain
PATENT ASSIGNEE(S): Coopers Animal Health Limited, United Kingdom
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4981684		19910101
APPLICATION INFO.:	US 1989-426050		19891024 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Moskowitz, Margaret		
ASSISTANT EXAMINER:	Baker, R. Keith		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
LINE COUNT:	458		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB "Iscom" adjuvant matrices, comprising a sterol, a glycoside, a solubilized water-insoluble antigen and, optionally, a phospholipid, may be formed without removing the solubilizing agent used for the antigen. The glycoside is preferably Quil A and the sterol is preferably cholesterol.

Searcher : Shears 571-272-2528

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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

FILE 'MEDLINE' ENTERED AT 16:09:30 ON 04 NOV 2005

FILE LAST UPDATED: 3 NOV 2005 (20051103/UP).. FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP
RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH.2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

L29	407304	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	B4./CT
L30	2355	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	EIMERIA/CT
L31	23	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L29 AND L30
L32	7572	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	"FREEZE DRYING"/CT
L33	0	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L31 AND L32
L29	407304	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	B4./CT
L30	2355	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	EIMERIA/CT
L31	23	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L29 AND L30
L34	7354	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	VACCINES/CT
L35	34180	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	IMMUNIZATION/CT
L36	2	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L31 AND (L34 OR L35)

L36 ANSWER 1 OF 2 MEDLINE on STN
ACCESSION NUMBER: 85279205 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2992439
TITLE: Concurrent infections with reoviruses and coccidia in
broilers.
AUTHOR: Ruff M D; Rosenberger J K
SOURCE: Avian diseases, (1985 Apr-Jun) 29 (2) 465-78.
Journal code: 0370617. ISSN: 0005-2086.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198509
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19850912

ED Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19850912
AB These experiments investigated the interaction among two species of
coccidia (Eimeria acervulina and E. mitis) and three strains of
reovirus (virus 2035, a weak to moderate pathogen; and viruses 2408

Searcher : Shears 571-272-2528

and 1733, severe pathogens). When reoviruses were not present, high inoculation dosages (10(6) sporulated oocysts/bird) of both *E. acervulina* and *E. mitis* depressed weight gain, plasma pigment, and plasma protein. Low doses of coccidia (10(4) oocysts) in the absence of virus had no such effect on weight gain. When high doses of coccidia were present at the same time as virus 2035 or 2408, they resulted in a significantly greater depression of weight gain than when either virus or coccidia were present alone. With virus 2035, this greater depression was seen even when low doses of coccidia were used. Lesion scores due to coccidiosis and the number of oocysts produced were not affected by previous exposure to reovirus. Both coccidiosis and reovirus infections increased the frequency of some leg problems and other abnormal conditions. The most obvious interaction between coccidia and reovirus was the marked increase in swollen hocks seen when coccidia and virus 2035 were present together (20-27%) compared with either the virus or coccidia alone (0-10%). Virus 2408 interfered slightly with the development of immunity to coccidia. There was some indication that early coccidiosis could increase the ability of some virus isolates to infect various tissues of the host.

L36 ANSWER 2 OF 2 MEDLINE on STN
 ACCESSION NUMBER: 82221871 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 6283508
 TITLE: Influence of hormonal and chemical bursectomy on the development of acquired immunity to coccidia in broiler chickens.
 AUTHOR: Giambrone J J; Klesius P H; Eckamn M K; Edgar S A
 SOURCE: Poultry science, (1981 Dec) 60 (12) 2612-8.
 Journal code: 0401150. ISSN: 0032-5791.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198208
 ENTRY DATE: Entered STN: 19900317
 Last Updated on STN: 19970203
 Entered Medline: 19820807
 ED Entered STN: 19900317
 Last Updated on STN: 19970203
 Entered Medline: 19820807
 AB The effect of bursectomy on the development of acquired immunity to coccidiosis in young broiler chickens was examined. Bursectomy was produced by a combination injection of testosterone at 12 days of embryonation and cyclophosphamide at 1 and 2 days after hatching. Immunity to coccidiosis developed in bursectomized chickens immunized with commercially prepared vaccine (CocciVac D) as were measured by resistance to challenge infection at either 6 or 10 weeks of age. Bursectomy had no marked effect on the development of cell-mediated immunity as measured by delayed type hypersensitivity to coccidial oocyst. Since the cell-mediated immune response was not inhibited in the bursectomized chickens, this response was necessary for the development of acquired immunity to coccidiosis.

L30 2355 SEA FILE=MEDLINE ABB=ON PLU=ON EIMERIA/CT
 L32 7572 SEA FILE=MEDLINE ABB=ON PLU=ON "FREEZE DRYING"/CT
 L37 177495 SEA FILE=MEDLINE ABB=ON PLU=ON (SALMONELLA OR ESCHERICHIA COLI)/CT
 L38 20 SEA FILE=MEDLINE ABB=ON PLU=ON L37 AND L30

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L39 0 SEA FILE=MEDLINE ABB=ON PLU=ON L38 AND L32

L30 2355 SEA FILE=MEDLINE ABB=ON PLU=ON EIMERIA/CT
L35 34180 SEA FILE=MEDLINE ABB=ON PLU=ON IMMUNIZATION/CT
L37 177495 SEA FILE=MEDLINE ABB=ON PLU=ON (SALMONELLA OR ESCHERICHIA
COLI)/CT
L38 20 SEA FILE=MEDLINE ABB=ON PLU=ON L37 AND L30
L40 1 SEA FILE=MEDLINE ABB=ON PLU=ON L38 AND L35

L41 1 L40 NOT L36

L41 ANSWER 1 OF 1 MEDLINE on STN
ACCESSION NUMBER: 2004506962 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15474724
TITLE: Characterisation of the antigenic and immunogenic
properties of bacterially expressed, sexual stage
antigens of the coccidian parasite, Eimeria maxima.
AUTHOR: Belli Sabina I; Mai Kelly; Skene Caroline D; Gleeson
Michelle T; Witcombe David M; Katrib Marilyn; Finger
Avner; Wallach Michael G; Smith Nicholas C
CORPORATE SOURCE: Institute for the Biotechnology of Infectious Diseases,
University of Technology, Sydney, Gore Hill, N.S.W.
2065, Australia.. sabina.belli@uts.edu.au
SOURCE: Vaccine, (2004 Oct 22) 22 (31-32) 4316-25.
Journal code: 8406899. ISSN: 0264-410X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200412
ENTRY DATE: Entered STN: 20041013
Last Updated on STN: 20041228
Entered Medline: 20041227
ED Entered STN: 20041013
Last Updated on STN: 20041228
Entered Medline: 20041227
AB Coccidiosis in poultry is caused by the intestinal parasite Eimeria;
it causes significant financial losses to the commercial poultry
industry worldwide. CoxAbic is the first commercially available
subunit vaccine against coccidiosis. The vaccine consists of affinity
purified sexual stage (gametocyte) antigens (APGA) isolated from
Eimeria maxima. Production of this vaccine is time-consuming and
laborious and, therefore, a recombinant subunit vaccine substitute for
CoxAbic is desirable. The genes encoding the two immunodominant
components of CoxAbic, gam56 and gam82, were cloned into the bacterial
expression vector, pTRCHisB, and the proteins expressed and purified.
Both recombinant proteins were recognised by protective chicken
antibodies that were raised to APGA, by immunoblotting. In a
competitive ELISA, a combination of the recombinant proteins inhibited
the binding of anti-APGA antibodies to APGA by 76%, which was
comparable to the inhibition of 98% observed when APGA was used as the
competing protein in the assay. In two breeds of chicken (Australorp
and Cobb500), the recombinant proteins alone, or in combination,
elicited a dose-dependent, antibody response that recognised APGA by
ELISA, and gametocytes by immunoblotting. Together, the results

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suggested that the development of a recombinant subunit vaccine that maintains the antigenic and immunogenic properties of the native protein vaccine, CoxAbic, is feasible.

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, CABA, AGRICOLA, VETU, VETB, USPATFULL' ENTERED AT 16:16:18 ON 04 NOV 2005)

L42 169 S "SCHAAP T"?/AU
 L43 296 S "KUIPER C"?/AU
 L44 2258 S "VERMEULEN A"?/AU
 L45 6 S L42 AND L43 AND L44
 L46 11 S L42 AND (L43 OR L44)
 L47 12 S L44 AND L43
 L48 134 S (L42 OR L43 OR L44) AND L1
 L49 75 S L48 AND (VACCIN? OR IMMUNIS? OR IMMUNIZ?)
 L50 27 S L49 AND ADJUVANT
 L51 39 S L45 OR L46 OR L47 OR L50
 L52 30 DUP REM L51 (9 DUPLICATES REMOVED)

- Author (S)

L52 ANSWER 1 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2005:280494 USPATFULL

TITLE: Live attenuated parasite **vaccine**

INVENTOR(S): Van Poppel, Nicole Francisca Johanna, Nijmegen, NETHERLANDS

Vermeulen, Arnoldus Nicolaas, GZ Cuyk, NETHERLANDS

Schaap, Theodorus Cornelis, Beugen, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005244437	A1	20051103
APPLICATION INFO.:	US 2003-526731	A1	20030919 (10)
	WO 2003-EP10696		20030919
			20050304 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	EP 2003-2078953	20020920
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	INTERVET U.S., PATENT DEPARTMENT, PO BOX 318, MILLSBORO, DE, 19966-0318, US	
NUMBER OF CLAIMS:	19	
EXEMPLARY CLAIM:	1-20	
NUMBER OF DRAWINGS:	28 Drawing Page(s)	
LINE COUNT:	1725	

AB The present invention relates inter alia to attenuated live parasites of the phylum Apicomplexa and the family of Trypanosomatidae and to the use of such attenuated live parasites in a **vaccine** and in the manufacturing of such a **vaccine**. Furthermore, the present invention relates to **vaccines** comprising such attenuated live parasites and to methods for the production of such **vaccines**. Finally, the invention relates to specific tet-repressor fusion proteins and to attenuated live parasites according to the invention comprising such tet-repressor fusion proteins.

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L52 ANSWER 2 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2005:43294 USPATFULL

TITLE: Coccidiosis **vaccines**

INVENTOR(S): **Schaap, Theodorus Cornelis,**
's-Hertogenbosch, NETHERLANDS
Kuiper, Catharina Maria,
's-Hertogenbosch, NETHERLANDS
Vermeulen, Arnoldus Nicolaas, Cuyk,
NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005037020	A1	20050217
APPLICATION INFO.:	US 2003-723123	A1	20031126 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-749233, filed on 27 Dec 2000, GRANTED, Pat. No. US 6680061 Division of Ser. No. US 1999-411578, filed on 4 Oct 1999, GRANTED, Pat. No. US 6203801		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-203384	19981007
	EP 1998-203457	19981016
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	AKZO NOBEL PHARMA PATENT DEPARTMENT, PO BOX 318, MILLSBORO, DE, 19966	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	CLM-001-6	
LINE COUNT:	1256	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB The present invention relates to hydrophilic Eimeria polypeptides, DNA-fragments encoding those peptides, recombinant DNA molecules comprising such DNA-fragments, live recombinant carriers comprising such DNA-fragments or recombinant DNA molecules and host cells comprising such DNA-fragments, recombinant DNA molecules or live recombinant carriers. Furthermore, the invention relates to antibodies against the polypeptides and to coccidiosis **vaccines** based upon said polypeptides. The invention also relates to methods for the preparation of such antibodies and **vaccines**, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:267358 HCAPLUS

DOCUMENT NUMBER: 140:286150

TITLE: Live attenuated parasite vaccine comprising tetR inducible promoter and Toxoplasma gondii ribosomal protein gene L9, plastid S9, S3 or S13

INVENTOR(S): Van Poppel, Nicole Francisca Johanna;
Vermeulen, Arnoldus Nicolaas; Schaap,
Theodorus Cornelis

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

Searcher : Shears 571-272-2528

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026903	A2	20040401	WO 2003-EP10696	20030919
WO 2004026903	A3	20040603		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2498604	AA	20040401	CA 2003-2498604	20030919
EP 1543028	A2	20050622	EP 2003-750636	20030919
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003013994	A	20050719	BR 2003-13994	20030919
US 2005244437	A1	20051103	US 2005-526731	20050304
PRIORITY APPLN. INFO.:			EP 2002-78953	A 20020920
			WO 2003-EP10696	W 20030919

AB The present invention relates inter alia to attenuated live parasites of the phylum Apicomplexa and the family of Trypanosomatidae and to the use of such attenuated live parasites in a vaccine and in the manufacturing of such a vaccine. Furthermore, the present invention relates to vaccines comprising such attenuated live parasites and to methods for the production of such vaccines. Finally, the invention relates to specific tet-repressor fusion proteins and to attenuated live parasites according to the invention comprising such tet-repressor fusion proteins.

L52 ANSWER 4 OF 30 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN DUPLICATE 2

ACCESSION NUMBER: 2004:111191 BIOSIS
DOCUMENT NUMBER: PREV200400114821
TITLE: Coccidiosis vaccines.
AUTHOR(S): **Schaap, Theodorus Cornelis** [Inventor, Reprint
Author]; **Kuiper, Catharina Maria** [Inventor];
Vermeulen, Arnoldus Nicolaas [Inventor]
CORPORATE SOURCE: van de Does de Willeboissingel 53, 5211 CE,
's-Hertogenbosch, Netherlands
PATENT INFORMATION: US 6680061 20040120
SOURCE: Official Gazette of the United States Patent and
Trademark Office Patents, (Jan 20 2004) Vol. 1278, No.
3. <http://www.uspto.gov/web/menu/patdata.html>. e-file.
ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Feb 2004
Last Updated on STN: 25 Feb 2004

AB The present invention relates to hydrophilic Eimeria polypeptides,

DNA-fragments encoding those peptides, recombinant DNA molecules comprising such DNA-fragments, live recombinant carriers comprising such DNA-fragments or recombinant DNA molecules and host cells comprising such DNA-fragments, recombinant DNA molecules or live recombinant carriers. Furthermore, the invention relates to antibodies against the polypeptides and to coccidiosis vaccines based upon said polypeptides. The invention also relates to methods for the preparation of such antibodies and vaccines, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

L52 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
 ACCESSION NUMBER: 2004:386533 HCAPLUS
 DOCUMENT NUMBER: 142:129534
 TITLE: An Eimeria vaccine candidate appears to be lactate dehydrogenase; characterization and comparative analysis
 AUTHOR(S): Schaap, D.; Arts, G.; Kroeze, J.; Niessen, R.; Roosmalen-Vos, S. V.; Spreeuwenberg, K.; **Kuiper, C. M.**; Beek-Verhoeven, N. V. D.; Kok, J. J.; Knegtel, R. M. A.; **Vermeulen, A. N.**
 CORPORATE SOURCE: Intervet International BV, Parasitology R&D, Boxmeer, 5830AA, Neth.
 SOURCE: Parasitology (2004), 128(6), 603-616
 CODEN: PARAAE; ISSN: 0031-1820
 PUBLISHER: Cambridge University Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB AB An Eimeria acervulina protein fraction was identified which conferred partial protection against an E. acervulina challenge infection. From this fraction a 37 kDa protein was purified and its corresponding cDNA was cloned and shown to encode a lactate dehydrogenase (LDH). Full length cDNAs encoding LDH from two related species, E. tenella and E. maxima, were also cloned. The homol. between the primary amino acid sequences of these three Eimeria LDH enzymes was rather low (66-80%), demonstrating an evolutionary divergence. The Plasmodium LDH crystal structure was used to generate a 3D-model structure of E. tenella LDH, which demonstrated that the many variations in the primary amino acid sequences (P. falciparum LDH and E. tenella LDH show only 47% identity) had not resulted in altered 3D-structures. Only a single LDH gene was identified in Eimeria, which was active as a homotetramer. The protein was present at similar levels throughout different parasitic stages (oocysts, sporozoites, schizonts and merozoites), but its corresponding RNA was only observed in the schizont stage, suggesting that its synthesis is restricted to the intracellular stage.
 REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 6 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2002:12032 USPATFULL
 TITLE: **VACCINES AGAINST EIMERIA MEDIATED DISORDER**
 INVENTOR(S): **VERMEULEN, ARNO N**, CUIJK, NETHERLANDS
CLERCX-BREED, DOMINIQUE G J, NIJMEGEN, NETHERLANDS

NUMBER	KIND	DATE
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PATENT INFORMATION: US 2002006408 A1 20020117
APPLICATION INFO.: US 1998-56806 A1 19980408 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1997-302447	19970904
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WILLIAM M BLACKSTONE, AKZO NOBEL, 1300 PICCARD DRIVE NO 206, ROCKVILLE, MD, 208504373	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	1071	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Compositions comprising Eimeria proteins or variants/fragments of such proteins can be used to produce a coccidiosis vaccine	

The proteins are present in the hydrophilic phase of a Triton X-114 extract of Eimeria sporozoites and have molecular masses of 26-30 kDa±5 kDa when determined by SDS PAGE under reducing conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 7 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2001:40017 USPATFULL
TITLE: Coccidiosis polypeptide and vaccines
INVENTOR(S): Schaap, Theodorus Cornelis,
's-Hertogenbosch, Netherlands
Kuiper, Catharina Maria,
's-Hertogenbosch, Netherlands
Vermeulen, Arnoldus Nicolaas, Cuyk,
Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6203801	B1	20010320
APPLICATION INFO.:	US 1999-411578		19991004 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1998-203384	19981007
	EP 1998-203457	19981016
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Minnifield, Nita	
ASSISTANT EXAMINER:	Baskar, Padma	
LEGAL REPRESENTATIVE:	Blackstone, William M.	
NUMBER OF CLAIMS:	1	
EXEMPLARY CLAIM:	1	
LINE COUNT:	903	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to hydrophilic Eimeria polypeptides, DNA-fragments encoding those peptides, recombinant DNA molecules comprising such DNA-fragments, live recombinant carriers comprising

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such DNA-fragments, or recombinant DNA molecules and host cells comprising such DNA-fragments, recombinant DNA molecules or live recombinant carriers. Furthermore, the invention relates to antibodies against the polypeptides and to coccidiosis **vaccines** based upon said polypeptides. The invention also relates to methods for the preparation of such antibodies and **vaccines**, and to methods for the detection of Eimeria parasites and antibodies against Eimeria parasites.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2000:277728 HCAPLUS

DOCUMENT NUMBER: 132:307245

TITLE: Hydrophilic polypeptides from Eimeria and coccidiosis **vaccines**

INVENTOR(S): **Schaap, Theodorus Cornelis**; Kuijper, Catharina Maria; **Vermeulen, Arnoldus Nicolaas**

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.

SOURCE: Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 995799	A2	20000426	EP 1999-203214	19991001
EP 995799	A3	20000531		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
NZ 500033	A	20010629	NZ 1998-500033	19980101
JP 2000219635	A2	20000808	JP 1999-281680	19991001
US 6203801	B1	20010320	US 1999-411578	19991004
CA 2285136	AA	20000407	CA 1999-2285136	19991006
ZA 9906341	A	20000410	ZA 1999-6341	19991006
AU 9953480	A1	20000413	AU 1999-53480	19991006
AU 753959	B2	20021031		
MX 9909162	A	20001031	MX 1999-9162	19991006
BR 9904488	A	20010123	BR 1999-4488	19991006
US 6680061	B1	20040120	US 2000-749233	20001227
US 2005037020	A1	20050217	US 2003-723123	20031126
PRIORITY APPLN. INFO.:			EP 1998-203384	A 19981007
			EP 1998-203457	A 19981016
			US 1999-411578	A3 19991004
			US 2000-749233	A3 20001227

AB It is an objective of the present invention to provide polypeptides that are capable of inducing protection against the pathogenic effects of Eimeria infection in poultry. The invention relates to hydrophilic Eimeria polypeptides, DNA fragments encoding those peptides, live recombinant carriers comprising such fragments, host cells comprising such fragments or carriers, antibodies against the polypeptide and coccidiosis **vaccines**. The invention also relates to methods

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for the preparation of such antibodies and **vaccines**, and to methods for the detection of *Eimeria* parasites and antibodies against *Eimeria* parasites.

L52 ANSWER 9 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2000:102274 USPATFULL
TITLE: Coccidiosis poultry **vaccine**
INVENTOR(S): Kok, Jacobus Johannes, Nijmegen, Netherlands
van den Boogaart, Paul, SC Oss, Netherlands
Vermeulen, Arnodus Nicolaas, Cuyk, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel, N.V., Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6100241		20000808
APPLICATION INFO.:	US 1996-676882		19960703 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1995-201801	19950703
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Crouch, Deborah	
ASSISTANT EXAMINER:	Martin, Jill D.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	1230	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to *Eimeria* proteins with immunogenic properties as well as to DNA sequences encoding these proteins. These proteins can be administered to poultry thereby protecting the birds against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector **vaccine** against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 10 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1999:163220 USPATFULL
TITLE: Coccidiosis poultry **vaccine**
INVENTOR(S): Tomley, Fiona Margaret, Oxford, United Kingdom
Dunn, Paul Patric James, Oxfordshire, United Kingdom
Bumstead, Janene Marylin, Wantage, United Kingdom
Vermeulen, Arnoldus Nicolaas, Cuyk, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel, N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6001363		19991214
APPLICATION INFO.:	US 1998-13780		19980126 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-527044, filed on 12 Sep 1995, now patented, Pat. No. US 5885568		

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	NUMBER	DATE
PRIORITY INFORMATION:	EP 1994-202676	19940916
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
ASSISTANT EXAMINER:	Navarro, Mark	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	1215	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a novel Eimeria protein with immunogenic properties as well as to DNA sequences encoding these proteins. This protein can be administered to poultry thereby protecting the birds against coccidiosis. In addition the DNA encoding this protein can be used for the preparation of a vector **vaccine** against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 11 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1999:81539 USPATFULL

TITLE: Viral vector **vaccines** comprising nucleic acids encoding eimeria proteins for poultry **vaccination** against coccidiosis

INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk, Netherlands

Boogaart, Paul van den, Oss, Netherlands
Kok, Jacobus Johannus, Nijmegen, Netherlands

PATENT ASSIGNEE(S): Akzo Nobel, N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5925347		19990720
APPLICATION INFO.:	US 1995-468857		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994, now abandoned which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Crouch, Deborah	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	2115	

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby

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protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector **vaccine** against coccidiosis.

L52 ANSWER 12 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1999:36700 USPATFULL

TITLE: Coccidiosis poultry **vaccine**

INVENTOR(S): Tomley, Fiona Margaret, Oxford, England
Dunn, Paul Patric James, Chalgrove, England
Bumstead, Janene Marylin, Wantage, England
Vermeulen, Arnoldus N., Cuyk, Netherlands

PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5885568		19990323
APPLICATION INFO.:	US 1995-527044		19950912 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1994-202676	19940616
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
ASSISTANT EXAMINER:	Navarro, Mark	
LEGAL REPRESENTATIVE:	Klesner, Sharon N., Gormley, Mary E.	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	1223	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a novel Eimeria protein with immunogenic properties as well as to DNA sequences encoding these proteins. This protein can be administered to poultry thereby protecting the birds against coccidiosis. In addition the DNA encoding this protein can be used for the preparation of a vector **vaccine** against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 13 OF 30 VETU COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2000-61138 VETU

TITLE: **Vaccination against Eimeria tenella** infection using a fraction of **E . tenella** sporozoites selected by the capacity to activate T cells.

AUTHOR: Breed D G J; Schetters T P M; Verhoeven N A P; Boot Groenink A; Dorrestein J; **Vermeulen A N**

CORPORATE SOURCE: Intervet

LOCATION: Boxmeer, Neth.

SOURCE: Int.J.Parasitol. (29, No. 8, 1231-40, 1999) 4 Fig. 1 Tab. 28 Ref.

CODEN: IJPYBT

AVAIL. OF DOC.: Department of Parasitology, Intervet International BV, PO Box 31, 5830 AA Boxmeer, The Netherlands. (A.N.V.).
(email: arno.vermeulen@intervet.akzonobel.nl).

LANGUAGE: English

Searcher : Shears 571-272-2528

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DOCUMENT TYPE: Journal

FIELD AVAIL.: AB; LA; CT

AN 2000-61138 VETU

AB Potentially protective **E. tenella** sporozoite antigens were identified on the basis of in-vitro responsiveness of T cells, isolated 8 days after **E. tenella** infection, to fractions of **E. tenella** sporozoite proteins. 4 Of 9 fractions tested, were selected for s.c. **vaccination** of chickens. All 4 **vaccine** preparations, combined with Quil A **adjuvant**, induced strong T cell responses. 1 Fraction **immunized** chickens against subsequent challenge infection, protecting them against the development of cecal lesions. The reduction in cecal lesions was significant compared to unvaccinated controls. This fraction contained hydrophilic polypeptides with a molecular mass that ranged from 26 to 30 kDa. (conference abstract: COST-Action 820: **Vaccines** against Coccidiosis, August, 1999).

ABEX Peripheral blood lymphocytes were isolated 8 days after inoculation of chickens with sporulated **E. tenella** oocysts. Fractions of **E. tenella** sporozoite proteins were tested for their ability to stimulate these PBL, as measured by lymphocyte proliferation and macrophage activating factor (MAF) in their supernatants. 4 Fractions that stimulated T cells were used as **vaccine** preparations (5-10 ug protein/dose, 0.5 ml) containing 150 ug Quil A s.c. to 3-wk-old chickens twice at a 3-wk interval and tested for their T cell related immunogenicity and efficacy (reduction in cecal lesions after challenge 15 days later). Lymphocytes from all 4 **vaccinated** groups at day 11 after **vaccination** showed high reactivity on stimulation with sporozoite antigen with regard to both stimulation of lymphocyte proliferation and induction of MAF activity. Lymphocytes from chickens **vaccinated** with fraction 3 showed the highest responses; additionally, only the group of animals **vaccinated** with fraction 3 had significantly reduced cecal lesions scores compared to controls. In dose-effect experiments (0, 5 and 15 ug/dose), lymphocytes from animals that had received the highest antigen dose showed the highest T cell activation responses in both assays. On challenge 4 days later, there was no apparent dose-effect relationship between the level of protection and the antigen dose; both groups of animals were protected to a similar degree against the development of cecal lesions, which was significantly different from that of the controls.

L52 ANSWER 14 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1998:118847 USPATFULL

TITLE: **Eimeria tenella** polypeptide and **vaccine** containing same

INVENTOR(S): Clarke, Lorraine Elizabeth, Cumnor, United Kingdom
Tomley, Fiona Margaret, Cambridge, United Kingdom
Dijkema, Rein, ML Oss, Netherlands

PATENT ASSIGNEE(S): **Vermeulen, Arno**, HH Cuyk, Netherlands
Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5814320		19980929
APPLICATION INFO.:	US 4734688		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No.		500162, filed on 27 Mar

Searcher : Shears 571-272-2528

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1990, now patented, Pat. No. 5677438

	NUMBER	DATE
PRIORITY INFORMATION:	EP 89303032	19890328
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Sidberry, Hazel F.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 17 Drawing Page(s)	
LINE COUNT:	930	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with a protein having the immunological properties of *Eimeria tenella* which is reactive with a monoclonal antibody E. TEN 11P-2 raised against *E. tenella* sporozoites.

The invention also relates to polypeptide fragments of this protein which can be used for immunization against *E. tenella*. These proteins and polypeptides can be prepared by isolation from *E. tenella*, by chemical synthesis or by recombinant DNA methods using the polynucleotides described herein or related sequences.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:708701 HCAPLUS
DOCUMENT NUMBER: 129:314968
TITLE: Eimeria proteins from Triton X-114 extract as coccidiosis vaccines and immunological reagents

INVENTOR(S): Vermeulen, Arno N.; Clercx-Breed, Dominique G. j.

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.

SOURCE: Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 872486	A1	19981021	EP 1998-201097	19980407
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
ZA 9802763	A	19981005	ZA 1998-2763	19980401
CA 2234472	AA	19981009	CA 1998-2234472	19980408
AU 9860754	A1	19981015	AU 1998-60754	19980408
AU 747818	B2	20020523		
US 2002006408	A1	20020117	US 1998-56806	19980408
JP 10298104	A2	19981110	JP 1998-97400	19980409
BR 9801023	A	20000111	BR 1998-1023	19980409
PRIORITY APPLN. INFO.:			EP 1997-302447	A 19970409

AB Compns. comprising Eimeria proteins or variants/fragments of such

Searcher : Shears 571-272-2528

10/723123

proteins can be used to produce a coccidiosis **vaccine** or immunol. reagent. The proteins are present in the hydrophilic phase of a Triton X-114 extract of Eimeria sporozoites and have mol. masses of 26-30 ± 5 kDa when determined by SDS PAGE under reducing conditions. Nine hydrophilic fractions of sporozoite proteins from **E. tenella**, separated according to different mol. weight, were tested for their ability to stimulate T-cell responses in PBL from day 8 p.i. in chickens. Although all **vaccine** preps. induced strong T-cell responses, surprisingly only one fraction induced partial protection against oral challenge infection with **E. tenella** oocysts.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 16 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1998:150738 USPATFULL

TITLE: Coccidiosis poultry **vaccine**

INVENTOR(S): Bumstead, Janene Marilyn, Wantage, England
Dunn, Paul Patrick James, Chalgrove, England
Tomley, Fiona Margaret, Oxford, England
Vermeulen, Arnoldus Nicolaas, Cuijk,
Netherlands

PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5843722		19981201
APPLICATION INFO.:	US 1996-668416		19960621 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-338057, filed on 10 Nov 1994		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1993-3090789	19931112
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Scheiner, Laurie	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	1497	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to novel Eimeria proteins with immunogenic properties as well as to DNA sequences encoding these proteins. These proteins can be administered to poultry thereby protecting the birds against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector **vaccine** against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 17 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1998:98769 USPATFULL

TITLE: Coccidiosis poultry **vaccine**

INVENTOR(S): Bumstead, Janene Marilyn, Wantage, England
Dunn, Paul Patrick James, Chalgrove, England

Searcher : Shears 571-272-2528

10/723123

Tomley, Fiona Margaret, Oxford, England
Vermeulen, Arnoldus Nicolaas, Cuijk,
Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5795741		19980818
APPLICATION INFO.:	US 1994-338057		19941110 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1993-309078	19931112
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nucker, Christine M.	
ASSISTANT EXAMINER:	Scheiner, Laurie	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	1491	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to novel Eimeria proteins with immunogenic properties as well as to DNA sequences encoding these proteins. These proteins can be administered to poultry thereby protecting the birds against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector **vaccine** against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 18 OF 30 USPATFULL on STN
ACCESSION NUMBER: 1998:95420 USPATFULL
TITLE: DNA encoding an Eimeria 200 kd antigen
INVENTOR(S): **Vermeulen, Arnoldus Nicolaas, Cuijk,**
Netherlands
Boogaart, Paul van den, Oss, Netherlands
Kok, Jacobus Johannus, Nijmegen, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5792644		19980811
APPLICATION INFO.:	US 1995-468852		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	

Searcher : Shears 571-272-2528

LEGAL REPRESENTATIVE: Gormley, Mary E.
 NUMBER OF CLAIMS: 16
 EXEMPLARY CLAIM: 1,9
 NUMBER OF DRAWINGS: 12 Drawing Figure(s); 10 Drawing Page(s)
 LINE COUNT: 1978

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 19 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1998:91861 USPATFULL
 TITLE: DNA encoding an Eimekia 50 KD antigen
 INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk,
 Netherlands

van den Boogaart, Paul, Oss, Netherlands
 Kok, Jacobus Johannus, Nijmegen, Netherlands
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5789233		19980804
APPLICATION INFO.:	US 1994-310357		19940921 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1,13	
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	1973	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 20 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1998:85589 USPATFULL
 TITLE: Eimeria polypeptide antigen and vaccines
 containing the same

10/723123

INVENTOR(S): Vermeulen, Arno, Cuyk, Netherlands
Dijkema, Rein, Oss, Netherlands
Kok, Jacobus Johannes, Nijmegen, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5783197		19980721
APPLICATION INFO.:	US 1995-473466		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1989-371947, filed on 27 Jun 1989, now patented, Pat. No. US 5602033		

	NUMBER	DATE
PRIORITY INFORMATION:	NL 1988-1627	19880627
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Sidberry, Hazel F	
LEGAL REPRESENTATIVE:	Gormley, Mary E., Blackstone, William M.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	493	

AB The present invention is concerned with a polypeptide of Eimeria
which can be used for the **immunization** of poultry against
coccidiosis. Furthermore, the invention comprises a DNA fragment of
Eimeria coding for said polypeptide.

L52 ANSWER 21 OF 30 USPATFULL on STN
ACCESSION NUMBER: 1998:82587 USPATFULL
TITLE: Coccidiosis poultry vaccine DNA encoding
an elmeria 20K antigen
INVENTOR(S): Vermeulen, Arnoldus Nicolaas, HH Cuijk,
Netherlands
van den Boogaart, Paul, SC Oss, Netherlands
Kok, Jacobus Johannus, DH Nijmegen, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5780289		19980714
APPLICATION INFO.:	US 1995-468855		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1991-201523	19910618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	16	

Searcher : Shears 571-272-2528

EXEMPLARY CLAIM: 1,9
 NUMBER OF DRAWINGS: 12 Drawing Figure(s); 10 Drawing Page(s)
 LINE COUNT: 1964
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel Eimeria proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector **vaccine** against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5
 ACCESSION NUMBER: 1998:264800 HCAPLUS
 DOCUMENT NUMBER: 129:121356
 TITLE: Induction of a local and systemic immune response using cholera toxin as vehicle to deliver antigen in the lamina propria of the chicken intestine
 AUTHOR(S): Vervelde, Lonneke; Janse, E. Marga;
Vermeulen, Arno N.; Jeurissen, Suzan H. M.
 CORPORATE SOURCE: Institute for Animal Science and Health, Lelystad, 8200 AB, Neth.
 SOURCE: Veterinary Immunology and Immunopathology (1998), 62(3), 261-272
 CODEN: VIIMDS; ISSN: 0165-2427
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB In this study, the humoral mucosal immune response to a recombinant Eimeria antigen (EalA) was enhanced using cholera toxin (CT). Chickens were primed intra-intestinally with EalA either conjugated or not to CT. The local and systemic antibody responses to both EalA and CT were determined to find out whether the chickens could respond to CT and whether both antigens had reached the lamina propria. In addition the effects of CT on lamina propria leukocytes were examined. The results showed that chickens had receptors on the caecal epithelium that could bind CT. At day 7 after administration, the number of CD4+ and CD8+ T lymphocytes in the lamina propria of the cecum had increased, indicating that CT had a specific immunol. effect. At this timepoint, anti-CT antibody containing cells were detected locally in the lamina propria of the cecum. In serum all antigen preps. containing CT induced IgM and IgG antibody titers specific for CT within 10 days after priming. In addition, the recombinant EalA antigen also induced serum responses when administered together with CT or conjugated to CT, thus both CT and the antigen had reached the lamina propria. Nevertheless, the EalA specific response was much higher in the primary response and after booster **immunization** when the antigen was conjugated to CT than when only mixed with CT. Therefore, we conclude that CT is a suitable **adjuvant** for intra-intestinal application in chickens, especially when the antigen is conjugated to it.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 23 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 97:94369 USPATFULL
 TITLE: Coccidiosis **vaccine**
 INVENTOR(S): Clarke, Lorraine Elizabeth, Cumnor, United Kingdom

10/723123

PATENT ASSIGNEE(S): Tomley, Fiona Margaret, Cambridge, United Kingdom
Dijkema, Rein, Oss, Netherlands
Vermeulen, Arno, Cuyk, Netherlands
Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5677438		19971014
APPLICATION INFO.:	US 1990-500162		19900327 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1989-303032	19890328
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Sidberry, Hazel F.	
LEGAL REPRESENTATIVE:	Gormley, Mary E., Blackstone, William M.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 11 Drawing Page(s)	
LINE COUNT:	927	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with a protein having the immunological properties of **Eimeria tenella** which is reactive with a monoclonal antibody E. TEN 11P-2 raised against **E. tenella** sporozoites.

The invention also relates to polypeptide fragments of this protein which can be used for immunization against **E. tenella**. These proteins and polypeptides can be prepared by isolation from **E. tenella**, by chemical synthesis or by recombinant DNA methods using the polynucleotides described herein or related sequences.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 24 OF 30 USPATFULL on STN
ACCESSION NUMBER: 97:86474 USPATFULL
TITLE: DNA encoding an Eimeria 100kD antigen
INVENTOR(S): Vermeulen, Arnoldus Nicolaas, Cuijk,
Netherlands
van den Boogaart, Paul, Oss, Netherlands
Kok, Jacobus Johannus, Nijmegen, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5670362		19970923
APPLICATION INFO.:	US 1995-468853		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310357, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1993-102865, filed on 6 Aug 1993, now abandoned which is a continuation of Ser. No. US 1992-904075, filed on 18 Jun 1992, now abandoned		

NUMBER	DATE
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Searcher : Shears 571-272-2528

10/723123

PRIORITY INFORMATION: EP 1991-201523 19910618
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Caputa, Anthony C.
LEGAL REPRESENTATIVE: Gormley, Mary E.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1,9
NUMBER OF DRAWINGS: 12 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 1964

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is concerned with novel *Eimeria* proteins with immunogenic properties as well as with DNA sequences encoding these proteins. These proteins can be administered to chickens thereby protecting the chickens against coccidiosis. In addition the DNA encoding these proteins can be used for the preparation of a vector vaccine against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 25 OF 30 USPATFULL on STN

ACCESSION NUMBER: 97:49537 USPATFULL
TITLE: ***Eimeria tenella* vaccine**
INVENTOR(S): Vermeulen, Arno, Cuyk, Netherlands
Dijkema, Rein, Oss, Netherlands
Kok, Jacobus J., Nijmegen, Netherlands
Van Den Boogaart, Paul, Oss, Netherlands
PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5637487		19970610
APPLICATION INFO.:	US 1989-454218		19891221 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	ZA 1989-4726	19890621
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Robinson, Douglas W.	
ASSISTANT EXAMINER:	Portner, Ginny Allen	
LEGAL REPRESENTATIVE:	Gormley, Mary E., Blackstone, William M.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	491	

AB The invention is concerned with a polypeptide of *Eimeria tenella* which can be used for the immunization of chickens against coccidiosis.

The invention also relates to a nucleic acid sequence encoding such a polypeptide. Said nucleic acid sequence is especially useful for the preparation of vector vaccines.

L52 ANSWER 26 OF 30 USPATFULL on STN

ACCESSION NUMBER: 97:24718 USPATFULL
TITLE: Coccidiosis poultry vaccine
INVENTOR(S): Bumstead, Janene M., Wantage, England

Searcher : Shears 571-272-2528

10/723123

Dunn, Paul P. J., Chalgrove, England
Tomley, Fiona M., Oxford, England
Vermeulen, Arnoldus N., Cuijk,
Netherlands

PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5614195		19970325
APPLICATION INFO.:	US 1995-464164		19950602 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-338057, filed on 10 Nov 1994		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1993-309078	19931112
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Mosher, Mary E.	
ASSISTANT EXAMINER:	Scheiner, Laurie	
LEGAL REPRESENTATIVE:	Gormley, Mary E.	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1,2	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	1462	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to novel Eimeria proteins with immunogenic
properties as well as to DNA sequences encoding these proteins.
These proteins can be administered to poultry thereby protecting the
birds against coccidiosis. In addition the DNA encoding these
proteins can be used for the preparation of a vector **vaccine**
against coccidiosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L52 ANSWER 27 OF 30 USPATFULL on STN

ACCESSION NUMBER: 97:12373 USPATFULL

TITLE: Coccidiosis **vaccine**

INVENTOR(S): **Vermeulen, Arno**, Cuyk, Netherlands

Dijkema, Rein, Oss, Netherlands

Kok, Jacobus J., Nijmegen, Netherlands

PATENT ASSIGNEE(S): Akzo Nobel N.V., Arnhem, Netherlands (non-U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5602033		19970211
APPLICATION INFO.:	US 1989-371947		19890627 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	NL 1988-1627	19880627
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Housel, James C.	
ASSISTANT EXAMINER:	Portner, Ginny Allen	
LEGAL REPRESENTATIVE:	Gormley, Mary E., Blackstone, William M.	
NUMBER OF CLAIMS:	11	

Searcher : Shears 571-272-2528

EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
 LINE COUNT: 523
 AB The present invention is concerned with a polypeptide of Eimeria which can be used for the **immunization** of poultry against coccidiosis. Furthermore, the invention comprises a DNA fragment of Eimeria coding for said polypeptide.

L52 ANSWER 28 OF 30 JAPIO (C) 2005 JPO on STN
 ACCESSION NUMBER: 2000-219635 JAPIO
 TITLE: COCCIDIOSIS VACCINE
 INVENTOR: **SCHAAP THEODORUS CORNELIS**; KUIJPER
 CATHARINA MARIA; **VERMEULEN ARNOLDUS**
NICOLAAS
 PATENT ASSIGNEE(S): AKZO NOBEL NV
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2000219635	A	20000808	Heisei	A61K039-00

APPLICATION INFORMATION

STN FORMAT: JP 1999-281680 19991001
 ORIGINAL: JP11281680 Heisei
 PRIORITY APPLN. INFO.: EP 1998-203384 19981007
 PRIORITY APPLN. INFO.: EP 1998-203457 19981016
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2000

AN 2000-219635 JAPIO

AB PROBLEM TO BE SOLVED: To obtain a polypeptide hat include an SOD-like polypeptide having a prescribed molecule and a specific amino acid sequence, thus can induce the prevention against the pathogenic action of inducing Eimeria infection in poultry and is useful for producing vaccine and the like.

SOLUTION: This is a hydrophilic Eimeria polypeptide isolated from Eimeriatenella or the like. The polypeptide is an SOD-like polypeptide, has a molecular weight of 25 kD and include and amino acid sequence having $\geq 70\%$ homology to that of the formula I or a peroxidoxin-like polypeptide with a 22 kD molecular weight and $\geq 70\%$ homology to that of formula II. In a preferred embodiment, this polypeptide is mixed with a pharmaceutically acceptable support to produce the vaccine for the Eimeria infections. In another case, the polypeptide is given to a suitable animal to produce the antibody against the polypeptide.

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L52 ANSWER 29 OF 30 CONFSCI COPYRIGHT 2005 CSA on STN
 ACCESSION NUMBER: 2001:69656 CONFSCI
 DOCUMENT NUMBER: 01-069656
 TITLE: Eimeria tenella anti-oxidant proteins: Differentially expressed enzymes with immunogenic properties
 AUTHOR: **Kuiper, C.M.**; Roosmalen-Vos, S.V.;
 Beek-Verhoeven, N.V.D.; **Schaap, T.C.**;
Vermeulen, A.N.
 SOURCE: University of Technology, Sydney, Department of Cell and Molecular Biology, Westbourne St, Gore Hill NSW 2065, Australia; phone: 61-2-9514-4063; fax: 61-2-9514-4026.

10/723123

Meeting Info.: 000 5692: 8th International Coccidiosis
Conference (0005692). Cairns (Australia). 9-13 Jul 2001
Molecular Parasitology Unit (University of Technology,
Sydney), Australian Society for Parasitology.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L52 ANSWER 30 OF 30 VETU COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 1999-60971 VETU

TITLE: **Eimeria acervulina** lactate
dehydrogenase: biochemical and immunological aspects.

AUTHOR: **Vermeulen A N**; Boot Groenink A; Kok H;
Dorrestein J

CORPORATE SOURCE: Intervet

LOCATION: Boxmeer, Neth.

SOURCE: Cost 820 Vaccines Anim.Coccidiosis (1996 Meet., 53)

AVAIL. OF DOC.: Dept. of Parasitology, Intervet Int., P.O. Box 31, 5830
AA, Boxmeer, The Netherlands.

LANGUAGE: English

DOCUMENT TYPE: Journal

FIELD AVAIL.: AB; LA; CT

AN 1999-60971 VETU

AB An **Eimeria acervulina** pentapeptide, DKEWN, was
isolated, purified, adjuvanted with saponin, and subsequently used to
vaccinate chickens. The **vaccine** induced
antigen-specific peripheral blood lymphocytes that induced interferon
upon stimulation. Oocyst output was reduced in **vaccinated**
chickens challenged with a low dose of **E.**
acervulina sporulated oocysts. (conference abstract: COST 820
- **Vaccines** against Animal Coccidiosis - 1996 Annual
Workshop, held at Copenhagen, Denmark, on 10-12 October, 1996).

ABEX In the search for protective antigens, peripheral blood cells of
Eimeria acervulina-infected chickens were
stimulated with purified fractions of different **E.**
acervulina stages. A 38 kD fraction, present in sporozoites
and intracellular stages, specifically stimulated T-cells. Cloning
and sequencing of the corresponding cDNA fragment from sporozoites
revealed an open reading frame of +/- 1300 bp coding for a
polypeptide of 330 amino acids. The predicted polypeptide showed
homology with LDH from a range of species. The highest match was
found with *Plasmodium falciparum* LDH. A typical pentapeptide, DKEWN,
present in the *Plasmodium* LDH was also found in the **E.**
acervulina LDH, but not in other LDH from mammals, fungi
or bacteria. The **E. acervulina** protein was
isolated and purified and used to **vaccinate** chickens using
saponin as **adjuvant**. The **vaccine** induced a
population of antigen-specific peripheral blood lymphocytes, that
upon stimulation, produced interferon. After challenge with a low
dose of **E. acervulina** sporulated oocysts,
vaccinated chickens showed a reduction in oocyst output
compared to controls. (CLW)

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FILE 'HCAPLUS' ENTERED AT 15:51:43 ON 04 NOV 2005

L1 1494 SEA ABB=ON PLU=ON (EIMERIA OR "E") (W) (COCCIDIOS? OR
TENELLA OR NECATRIX OR BRUNETTI OR MITIS OR ACERVUL?)
D KWIC
L2 7 SEA ABB=ON PLU=ON L1 AND (NEUROLYPHOMAT? OR NEURO
LYMPHOMAT? OR FOWL PARALYSIS OR CELO VIRUS OR (MAREK? OR
NEW CASTLE? OR NEWCASTLE?) (W) DISEAS? OR INFECTIOUS
BRONCHITIS OR CHICKEN (1W) (ANEMIA OR ANAEMIA) (W) AGENT OR
REOVIRUS OR REOVIRID? OR REO (W) (VIRUS OR VIRID?))
L3 93 SEA ABB=ON PLU=ON L1 AND (FOWL (W) (ADENOVIR? OR ADENO
VIR?) OR AVIAN (W) (RETROVIR? OR RETRO VIR?) OR TURKEY (W) (RHI
NOTRACH? OR RHINO TRACH?) OR SALMONELLA OR COLI OR MDV OR
NDV OR IBV OR CAA)
D KWIC
L4 0 SEA ABB=ON PLU=ON L1 AND AVIAN (2W) (PNEUMOVIR? OR
METAPNEUMOVIR? OR (METAPNEUMO OR PNEUMO) (W) VIR?)
L5 3 SEA ABB=ON PLU=ON (L2 OR L3 OR L4) AND (HYDROPHIL? OR
HYDRO PHIL?)
L6 41 SEA ABB=ON PLU=ON (L2 OR L3 OR L4) AND (IMMUNIS? OR
IMMUNIZ? OR VACCIN? OR ADJUVANT)
L7 1 SEA ABB=ON PLU=ON L6 AND (FREEZ? (W) (DRIED OR DRY?) OR
LYOPHIL?)
D KWIC
D AU
L8 41 SEA ABB=ON PLU=ON (L2 OR L3 OR L4) AND (IMMUNIS? OR
IMMUNIZ? OR VACCIN?)
L9 7 SEA ABB=ON PLU=ON L8 AND ADJUVANT
D QUE L5
D QUE L7
D QUE L9
L10 8 SEA ABB=ON PLU=ON L5 OR L7 OR L9
D 1-8 .BEVERLY

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO, CABA, AGRICOLA, VETU, VETB' ENTERED AT 16:00:22
ON 04 NOV 2005

L11 159 SEA ABB=ON PLU=ON L2
L12 604 SEA ABB=ON PLU=ON L3
L13 0 SEA ABB=ON PLU=ON L4
L14 217 SEA ABB=ON PLU=ON (L11 OR L12) AND (IMMUNIS? OR IMMUNIZ?
OR VACCIN? OR ADJUVANT)
L15 4 SEA ABB=ON PLU=ON L14 AND (HYDROPHIL? OR HYDRO PHIL?)
L16 0 SEA ABB=ON PLU=ON L14 AND (FREEZ? (W) (DRIED OR DRY?) OR
LYOPHIL?)
L17 217 SEA ABB=ON PLU=ON (L11 OR L12) AND (IMMUNIS? OR IMMUNIZ?
OR VACCIN?)
L18 29 SEA ABB=ON PLU=ON L17 AND ADJUVANT
L19 29 SEA ABB=ON PLU=ON L15 OR L18
L20 16 DUP REM L19 (13 DUPLICATES REMOVED)
D 1-16 IBIB ABS

FILE 'USPATFULL' ENTERED AT 16:05:54 ON 04 NOV 2005

L21 89 SEA ABB=ON PLU=ON L1 (L) (NEUROLYPHOMAT? OR NEURO

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LYMPHOMAT? OR FOWL PARALYSIS OR CELO VIRUS OR (MAREK? OR
NEW CASTLE? OR NEWCASTLE?) (W) DISEAS? OR INFECTIOUS
BRONCHITIS OR CHICKEN (1W) (ANEMIA OR ANAEMIA) (W) AGENT OR
REOVIRUS OR REOVIRID? OR REO (W) (VIRUS OR VIRID?))
L*** DEL 76 S L21 (L) (FOWL (W) (ADENOVIR? OR ADENO VIR?) OR AVIAN (W) (RETR
L22 292 SEA ABB=ON PLU=ON L1 (L) (FOWL (W) (ADENOVIR? OR ADENO VIR?)
OR AVIAN (W) (RETROVIR? OR RETRO VIR?) OR TURKEY (W) (RHINOTRAC
H? OR RHINO TRACH?) OR SALMONELLA OR COLI OR MDV OR NDV OR
IBV OR CAA)
L23 1 SEA ABB=ON PLU=ON L1 (L) (AVIAN (2W) (PNEUMOVIR? OR METAPNEUM
OVIR? OR (METAPNEUMO OR PNEUMO) (W) VIR?))
L24 183 SEA ABB=ON PLU=ON (L21 OR L22 OR L23) (L) (IMMUNIS? OR
IMMUNIZ? OR VACCIN?)
L25 108 SEA ABB=ON PLU=ON L24 (L) ADJUVANT
L26 57 SEA ABB=ON PLU=ON L25 (L) (FREEZ? (W) (DRIED OR DRY?) OR
LYOPHIL?)
L27 35 SEA ABB=ON PLU=ON L26 (L) (HYDROPHIL? OR HYDRO PHIL?)
L28 33 SEA ABB=ON PLU=ON L27 (L) (POLYPEPTIDE OR PEPTIDE OR
POLYPROTEIN OR POLY PEPTIDE) .
D QUE
D 1-33 IBIB ABS

FILE 'MEDLINE' ENTERED AT 16:09:30 ON 04 NOV 2005
L29 407304 SEA ABB=ON PLU=ON B4./CT
E EIMERIA/CT 5
L30 2355 SEA ABB=ON PLU=ON EIMERIA/CT
L31 23 SEA ABB=ON PLU=ON L29 AND L30
E ADJUVANTS/CT 5
E ADJUVANT/CT 5
E "FREEZE-DRIED"/CT 5
E "FREEZED-DRIED"/CT 5
E LYOPHILIZATION/CT 5
E FREEZE DRYING/CT 5
L32 7572 SEA ABB=ON PLU=ON "FREEZE DRYING"/CT
L33 0 SEA ABB=ON PLU=ON L31 AND L32
E VACCINES/CT 5
L34 7354 SEA ABB=ON PLU=ON VACCINES/CT
E IMMUNIZATION/CT 5
L35 34180 SEA ABB=ON PLU=ON IMMUNIZATION/CT
L36 2 SEA ABB=ON PLU=ON L31 AND (L34 OR L35)
D QUE L33
D QUE L36
D L36 1-2 . BEVERLYMED
L37 177495 SEA ABB=ON PLU=ON (SALMONELLA OR ESCHERICHIA COLI)/CT
L38 20 SEA ABB=ON PLU=ON L37 AND L30
L39 0 SEA ABB=ON PLU=ON L38 AND L32
L40 1 SEA ABB=ON PLU=ON L38 AND L35
D QUE L39
D QUE L40
L41 1 SEA ABB=ON PLU=ON L40 NOT L36
D . BEVERLYMED

FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,
JICST-EPLUS, JAPIO, CABA, AGRICOLA, VETU, VETB, USPATFULL' ENTERED AT
16:16:18 ON 04 NOV 2005
L42 169 SEA ABB=ON PLU=ON "SCHAAP T"?/AU
L43 296 SEA ABB=ON PLU=ON "KUIPER C"?/AU
L44 2258 SEA ABB=ON PLU=ON "VERMEULEN A"?/AU
L45 6 SEA ABB=ON PLU=ON L42 AND L43 AND L44

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L46 11 SEA ABB=ON PLU=ON L42 AND (L43 OR L44)
L47 12 SEA ABB=ON PLU=ON L44 AND L43
L48 134 SEA ABB=ON PLU=ON (L42 OR L43 OR L44) AND L1
L49 75 SEA ABB=ON PLU=ON L48 AND (VACCIN? OR IMMUNIS? OR
 IMMUNIZ?)
L50 27 SEA ABB=ON PLU=ON L49 AND ADJUVANT
L51 39 SEA ABB=ON PLU=ON L45 OR L46 OR L47 OR L50
L52 30 DUP REM L51 (9 DUPLICATES REMOVED)
 D 1-30 IBIB ABS

FILE 'HOME' ENTERED AT 16:18:56 ON 04 NOV 2005

FILE HCAPLUS

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http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

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FILE BIOSIS

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CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
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FILE RELOADED: 19 October 2003.

FILE EMBASE

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FILE SCISEARCH

FILE COVERS 1974 TO 3 Nov 2005 (20051103/ED)

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FILE JICST-EPLUS

FILE COVERS 1985 TO 24 OCT 2005 (20051024/ED)

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FILE JAPIO

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<<< GRAPHIC IMAGES AVAILABLE >>>

FILE CABA

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FILE AGRICOLA

FILE COVERS 1970 TO 4 Nov 2005 (20051104/ED)

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FILE VETU

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FILE COVERS 1983-2001

FILE VETB

FILE LAST UPDATED: 25 SEP 94 <940925/UP>

FILE COVERS 1968-1982

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 3 Nov 2005 (20051103/PD)

FILE LAST UPDATED: 3 Nov 2005 (20051103/ED)

HIGHEST GRANTED PATENT NUMBER: US6961956

HIGHEST APPLICATION PUBLICATION NUMBER: US2005246811

CA INDEXING IS CURRENT THROUGH 3 Nov 2005 (20051103/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 3 Nov 2005 (20051103/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2005

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